ORDER NO. VMD9309M133

Service Manual

Simplified

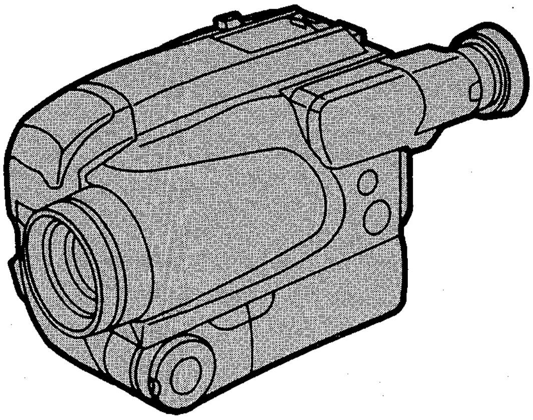
Panasonic S-VHS-C 625 VHS PAL

Hi-Fi HQ

S-VHS-C Movie

NV-S65E

DL-MECHANISM



SPECIFICATIONS

ITEM	SPECIFICATION
POWER	Source: Battery Pack; 4.8V AC Adaptor; 6.0V Consumption; Recording mode; 7.1W (Battery operation)
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL
FM AUDIO RECORDING SYSTEM	4 rotary heads, helical scanning system
TAPE FORMAT	S-VHS-C/VHS-C Cassette Tape (Tape width 12.7mm)
TAPE SPEED	23.39mm/s Record/Playback Time: 45min. with NV-SEC45XD
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)
	STANDARD ILLUMINATION: 1,400 lux
	MINIMUM REQUIRED ILLUMINATION: 3 Lux (Low Light Mode)
	LENS: 10:1 Variable Speed Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Auto Focus System, F1.6 (6~60mm), Filter Diameter 37mm
	IMAGE SENSOR: 1/3 inch CCD Image Sensor
	VIEWFINDER: 0.5 inch Electronic Viewfinder

ITEM	SPECIFICATION
VIDEO	HEADS: 4 rotary heads, 1 flying erase head
	OUTPUT: PHONO CONNECTOR; 1.0Vp-p 75Ω unbalanced S-VIDEO OUT; 1.0Vp-p 75Ω unbalanced
AUDIO	HEAD: 1 Stationary head (Normal-Mono) 4 rotary heads; 2 channels (Hi-Fi Sound-Stereo)
	OUTPUT: PHONO CONNECTOR; −8dB, 47kΩ loaded
	INPUT: MIC IN (M3); −70dB 4.7kΩ or more unbalanced
WEIGHT	Approx. 780g (without Battery Pack)
DIMENSIONS	112(W)×117(H)×216(D) mm
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Cassette Adaptor 1 pc. Shoulder Strap 1 pc. AV Output Cable 1 pc. DC Input Cable 1 pc. Battery for Cassette Adaptor Operation 1 pc. Battery for Clock Operation 1 pc. 21 pin Adaptor 1 pc. S-Video Cable 1 pc. AC Cable

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

INTRODUCTION

This service manual contains technical information which will allow service Personnels to understand and service the S-VHS-C Movie Model NV-S65E.
This service manual is based on NV-S85E/B/A and NV-S850EN service manual.
Therefore please refer to the descriptions which are shown in NV-S85E/B/A and NV-S850EN service manual Order No. VMD9308M124.

Note: CAMERA ADJUSTMENT

Adjustment procedure supplement for camera unit is separate volume from now.
Please refer to following manual for detail of adjustment procedure of camera.
Order number for adjustment procedure (camera) supplement: VMD9308M125.
(It will be supplied a few weeks later.)

Note: This movie camera uses AC Adaptor is VW-AS4 series.
The Service manual for AC Adaptor VW-AS4 is separate volume.
Please refer to following manual for detail of VW-AS4 series. (order no. VMD9304M117)

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1. COMPARISON CHART

MODEL : NV-S65E

This chart is described different part from the basic model NV-S85E to the new model NV-S65E.

Note : IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special safety characteristics.
When replacing any of these components, use only the same type.

Mechanical Replacement Parts (A)..Added, (C)..Changed, (D)..Deleted

Ref. No.	NV-S85E Part No.	NV-S65E Part No.	Pcs /Set	Part Name & Description	Remarks
308 (5)	VYK5289	VYK5392	1	FRONT CASE (L)(1) U.	(C)
318 (5)	VGU6399	-------	1->0	---------------------	(D)
320 (5)	VYP5351	VYP5391	1	CASSETTE COVER (1) UNIT	(C)
339 (5)	VKM3580	VKM3639	1	S-JACK PIECE	(C)
404 (6)	VGU6391	VGU6450	1	MODE BUTTON	(C)
406 (6)	VGQ3272	VGQ3334	1	CURSOR	(C)
407 (6)	VKM3594	VKM3636	1	TOP CASE	(C)
410 (6)	VGU6392	VGU6460	1	MODE SELECT LEVER	(C)
411 (6)	VYK5285	VYK5386	1	SIDE CASE (R)(1) U.	(C)
412 (6)	VGU6369	-------	1->0	---------------------	(D)
413 (6)	VGU6394	VGU6448	1	CAMERA OPERATION BUTTON	(C)
414 (6)	VGU6398	VGU6449	1	FADE/DATE BUTTON	(C)
415 (6)	VKF2079	VKF2107	1	AV JACK DOOR	(C)
418 (6)	VYK5287	VYK5390	1	FRONT CASE (1) U.	(C)
431 (6)	VKM3578	VKM3638	1	EVF CASE (R)	(C)
432 (6)	VYK5290	VYK5393	1	EVF CASE (L) U.	(C)
434 (6)	VYQ0905	VYQ0945	1	SLIDE CASE U.	(C)
483 (7)	VPG7113	VPG7174	1	PACKING CASE	(C)
492 (7)	VQT5389	VQT5432	1	OPERATING INSTRUCTIONS (ENGLISH/GERMAN/FRENCH) /SPANISH)	<!>(C)
492 (7)	VQT5390	-------	1->0	---------------------	<!>(D)

Electrical Replacement Parts (A)..Added, (C)..Changed, (D)..Deleted

Ref. No.	NV-S85E Part No.	NV-S65E Part No.	Pcs /Set	Part Name & Description	Remarks
	VEP23169A	VEP23169B	1	CAMERA MAIN C.B.A.	(RTL) (C)
	ESU39010	ESU39011	1	CAMERA OPERATION PANEL U.	(RTL) (C)
	VEP03A55A	VEP03A55B	1	VTR MAIN C.B.A.	(RTL) (C)
	VEK6549	-------	1->0	---------------------	(RTL) (D)

This chart is conparison chart regarding main functions between NV-S85E and NV-S65E.
For more detail, please refer to the Operating Instructions or specification chart which is shown cover page of Service Manual of each model.

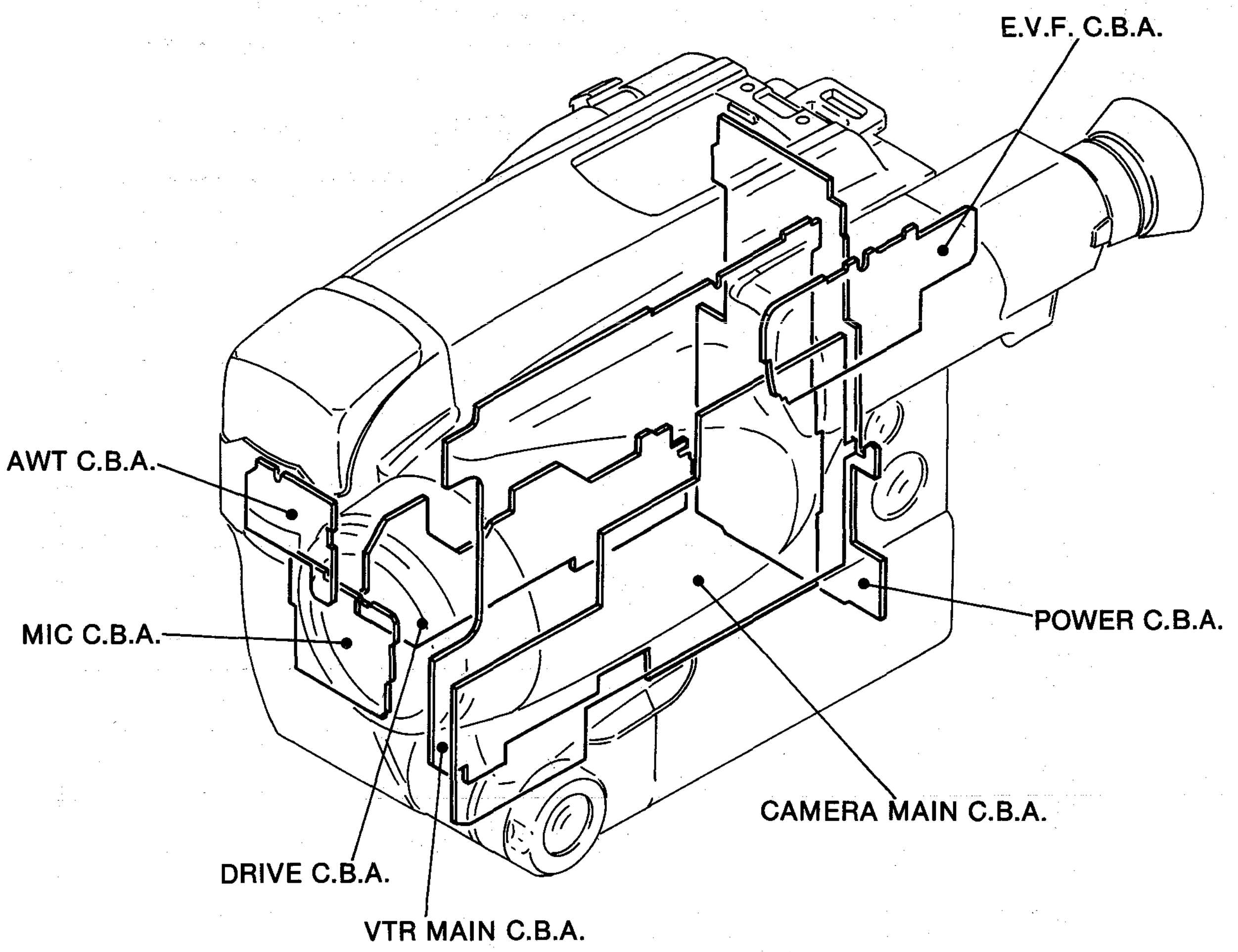
SECTION	CONTENTS	NV-S85E	NV-S65E	REMARKS
CAMERA	1/3" CCD (420K)	○	○	
	MINIMUM REQUIRED ILLUMINATION:	1 LUX	3 LUX	
	(Digital Gain-up)	○	×	
	IRIS CONTROL	○	○	
	(Intelligent Auto Iris)	○	○	
	(Compensation)	○	○	
	DIGITAL FUNCTION (Digital Dial)	○	×	
	(Digital Image Stabilizer)	○	×	
	(AUTO WIPE)	○	×	
	(AUTO MIX)	○	×	
	(AUTO TRACER)	○	×	
	(Digital Gain-up)	○	×	
	ZOOM (Opticaly)	X10	X10	
	(Digitaly)	○ (X20)	×	
	VITC (Read/Write)	○	×	
	SNAP SHOT RECORDING	○	×	
VTR	S-VHS-C	○	○	
	Hi-Fi AUDIO	○	○	
	AUDIO SELECT (Hi-Fi/MIX/NORMAL)	○	×	
	AUDIO INPUT	○	×	
	AUDIO DUBBING	○	×	
	PHONE	○(Stereo)	○(Normal)	
	MECHANISM (DL Mechanism)	○	○	
OTHERS	APS (Auto Power Save)	○	○	
	AE-Dial (AUTO/MANUAL/SPORTS/ PORTRAIT/LOW LIGHT)	○	○	
	EVF (0.5" Black & White)	○	○	
	EDIT SOCKET (11PIN)	○	○	
	AC ADAPTOR (VW-AS4E)	○	○	
ADJUSTMENT	ADJUSTMENT ROM IC (VFK0701ROM21)	○	○	
	ADJUSTMENT CABLES (VFK0766A/0734W)	○	○	
MESUREMENT	SERVICE EXTENSION CABLES	10PCS	10PCS	SAME AS NV-S85E

1-1. Service Extension Cables

Use the following extension cables when checking or adjusting individual circuit boards

Ref	Part NO	PIN	PART NAME	CONNECTION	Q'TY
1	VFK0670	18	FLAT CABLE	FP304(CAM.MAIN)～B1002(POWER)	1
2	VFK0710	23	FLAT CABLE	FP5001(VTR MAIN)～CYL	1
3	VFK0723	22	EXTENSION CABLE	B301(CAM.MAIN)～B501(CAMERA.OP)	1
4	VFK0727	16	FLAT CABLE	FP6001(VTR MAIN)～MECHA	1
5	VFK0728	9	FLAT CABLE	FP4001(VTR MAIN)～A/C HEAD	1
6	VFK0729	6	FLAT CABLE	FP6002(VTR MAIN)～MECHA	1
7	VFK0841	28	EXTENSION CABLE	B6001(VTR MAIN)～B1001(POWER)	1
8	VFK0896	23	FLAT CABLE	FP6004(VTR MAIN)～FP2003(DRIVE)	1
9	VFK0913	18	FLAT CABLE	FP301(CAM.MAIN)～FP3001(VTR MAIN)	1
10	VFK0933	10	FLAT CABLE	FP5001(VTR MAIN)～AV JACK	1

2. CIRCUIT BOARD LAYOUT



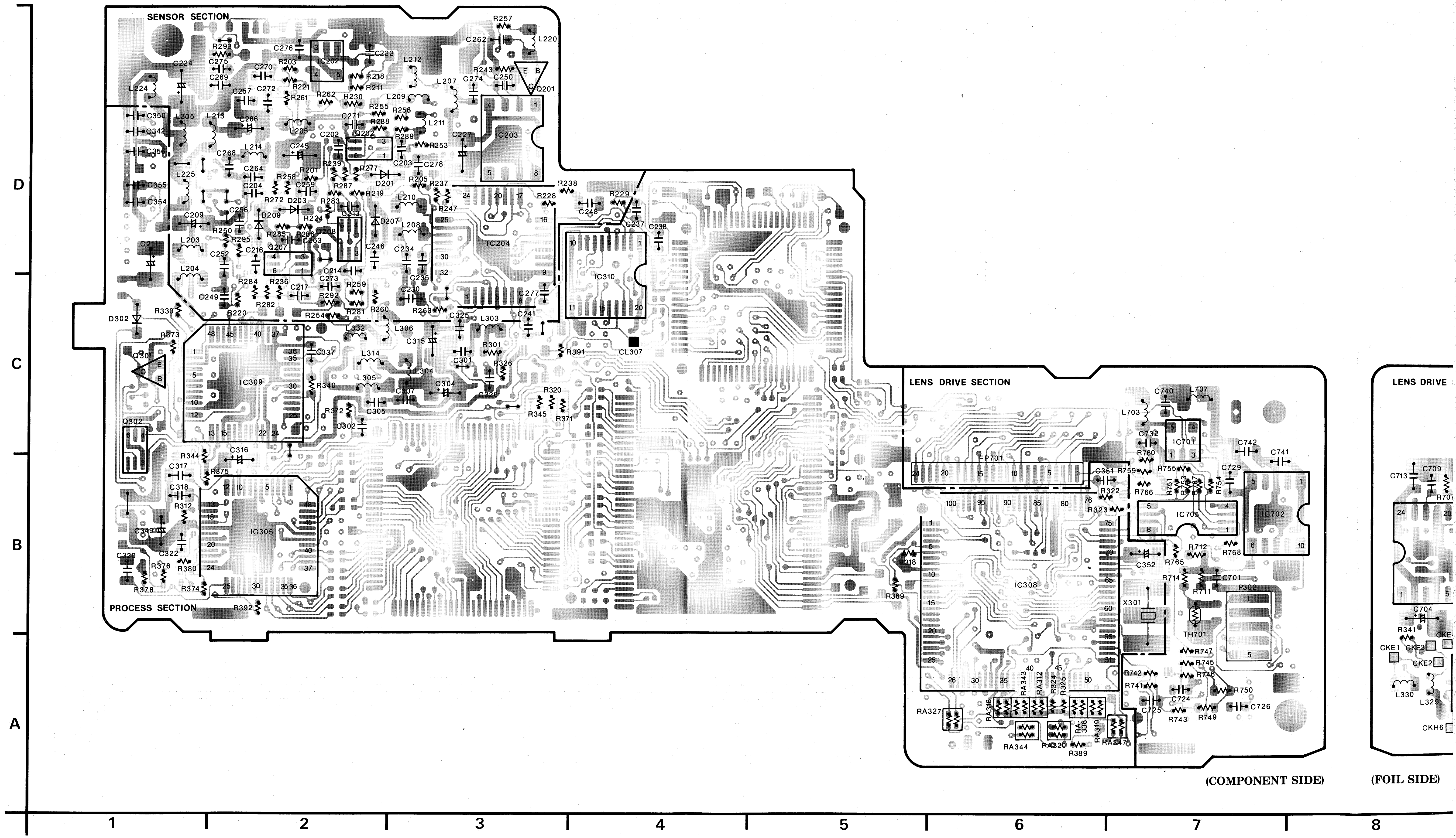
	C.B.A.'s NAME	SCHEMATIC DIAGRAM	REFER TO SERVICE MANUAL			
			MODEL NV-S85E/B/A, S850EN		MODEL NV-S65E	
1	CCD FLEXIBLE CARD	CCD FLEXIBLE CARD	○	USE PAGE 3-20	—	- - - - -
2	E.V.F.	E.V.F.	○	USE PAGE 3-21	—	- - - - -
3	CAMERA MAIN	PROCESS	×	- - - - -	○	USE PAGE 9
		SENSOR	○	USE PAGE 3-32	—	- - - - -
		LENS DRIVE	○	USE PAGE 3-35	—	- - - - -
4	AWT	AWT	○	USE PAGE 3-43	—	- - - - -
5	VTR MAIN	SYSTEM CONTROL	△	REFER TO PAGE 3-44	△	REFER TO PAGE 22
		SERVO	△	REFER TO PAGE 3-44	△	REFER TO PAGE 22
		AUTO POWER SAVER	○	SEE PAGE 3-51	—	- - - - -
		DISPLAY MICROPROCESSOR	△	REFER TO PAGE 3-55	△	REFER TO PAGE 23
		LUMINANCE & CHROMINANCE	△	REFER TO PAGE 3-58	△	REFER TO PAGE 24
		HEAD AMP	△	REFER TO PAGE 3-58	△	REFER TO PAGE 24
		AUDIO	△	REFER TO PAGE 3-66	△	REFER TO PAGE 25
		Hi-Fi AUDIO	△	REFER TO PAGE 3-69	△	REFER TO PAGE 26
6	POWER	POWER	○	USE PAGE 3-78	—	- - - - -
7	DRIVE	DRIVE	○	USE PAGE 3-84	—	- - - - -
8	INTERFACE	INTERFACE	○	USE PAGE 3-89	—	- - - - -
9	CAMERA OPERATION PANEL	CAMERA OPERATION PANEL	△	USE PAGE 3-90	△	REFER TO PAGE 27
10	AV JACK	AV JACK	○	USE PAGE 3-96	—	- - - - -
11	MIC	MIC	○	USE PAGE 3-99	—	- - - - -
12	S-JACK	S-JACK	○	USE PAGE 3-103	—	- - - - -

CAMERA MAIN C.B.A.

Integrated Circuit	
IC201	D-13
IC202	D-2
IC203	D-3
IC204	D-3
IC301	C-12
IC302	B-12
IC305	B-2
IC308	B-6
IC309	C-2
IC310	C-4
IC311	B-11
IC313	C-10
IC314	B-11
IC701	C-7
IC702	B-7
IC703	B-8
IC705	B-7
IC706	B-9
IC707	A-8
Transistor	
Q302	B-1
Q303	B-14
Q705	B-9
Q704	B-9
Q301	C-1
Q210	D-12
Q208	D-2
Q207	D-2
Q202	D-2
Q201	D-3
Transistor & Resistor	
QR301	B-10
QR701	B-10
QR702	B-9
Diode	
D201	D-2
D203	D-2
D207	D-2
D208	C-13
D209	D-2
D301	D-11
D302	C-1
D303	B-10
D304	D-12
D701	B-8
D702	A-9
Test Point	
CL202	C-13
CL203	D-13
CL204	D-12
CL205	D-12
CL209	D-14
CL210	D-14
CL211	D-14
CL212	D-14
CL213	C-12
CL301	B-10
CL302	B-11
CL303	B-11
CL304	B-11
CL305	C-12
CL306	C-14
CL307	C-4
CL308	D-10
CL309	B-10
CL310	C-13
CL311	C-14
CL312	C-14
CL701	A-9
CLA	C-14
CLB	C-14
TL301	C-14
TL302	C-14
TL303	C-14
TL304	C-14
TL305	C-14
TL306	C-14
TL307	C-14
TL309	C-14
Adjustment	
C223	D-13
Thermistor	
TH701	B-7
Connector	
B202	D-12
B301	A-10
B302	C-12
FP301	B-14
FP304	D-14
FP701	C-6
P302	B-7
Crystal Oscillator	
X201	D-14
X301	B-7
Filter	
FL201	D-12
Coil	
L203	D-1
L204	C-1
L205	D-2
L206	D-1
L207	D-3
L208	D-3
L209	D-3
L210	D-3
L211	D-3
L212	D-3
L213	D-1
L214	D-2
L220	D-3
L224	D-1
L225	D-1
L303	C-3
L304	C-3
L305	C-2
L306	C-2
L307	B-10
L308	B-12
L309	B-12
L314	C-2
L315	B-13
L316	B-14
L317	B-14
L321	B-14
L323	B-11
L324	C-13
L325	B-10
L326	B-10
L329	A-8
L330	A-8
L331	A-9
L332	C-2
L701	A-9
L703	C-7
L704	B-10
L705	B-10
L706	A-9
L707	C-7
Capacitor	
C202	D-2
C203	D-2
C204	D-2
C209	D-1
C211	D-1
C213	D-2
C214	C-2
C216	D-2
C217	C-2
C222	D-2
C224	D-1
C227	D-3
C228	C-12
C229	D-13
C230	C-3
C231	D-12
C232	D-13
C233	C-12
C234	D-3
C235	D-3
C236	D-12
C237	D-4
C238	D-4
C239	D-12
C241	C-3
C242	C-12
C243	D-12
C245	D-2
C246	D-2
C248	D-4
C249	C-2
C250	D-3
C252	C-2
C254	C-12
C256	D-2
C257	D-2
C259	D-2
C262	D-3
C263	D-2
C264	D-2
C266	D-2
C268	D-2
C269	D-2
C270	D-2
C271	D-2
C272	D-2
C273	C-2
C274	D-3
C275	D-2
C276	D-2
C277	C-3
C278	D-3
C301	C-3
C302	C-2
C304	C-3
C305	C-2
C306	C-13
C307	C-3
C308	C-12
C309	C-11
C310	B-12
C314	B-14
C315	C-3
C316	B-2
C317	B-1
C318	B-1
C319	B-14
C320	B-1
C321	B-13
C322	B-1
C323	B-14
C325	C-3
C326	C-3
C327	B-11
C328	C-1
C333	C-10
C334	C-10
C335	B-10
C336	C-14
C337	C-2
C338	C-14
C339	C-14
C340	C-14
C341	B-11
C342	D-1
C344	C-14
C345	B-14
C348	B-12
C349	B-1
C350	D-1
C351	B-6
C352	B-7
C353	B-10
C354	D-1
C355	D-1
C356	D-1
C357	C-14
C358	B-9
C359	B-9
C361	B-13
C701	B-7
C703	A-9
C704	B-8
C709	B-8
C713	B-8
C718	C-9
C719	B-9
C721	B-9
C724	A-7
C725	A-7
C726	A-7
C727	B-10
C728	B-10
C729	B-7
C731	B-9
C732	C-7
C740	C-7
C741	B-7
C742	B-7
Resistor	
R201	D-2
R203	D-2
R204	D-12
R205	D-3
R211	D-2
R218	D-2
R219	D-2
R220	C-2
R221	D-2
R224	D-2
R225	D-12
R228	D-3
R229	D-4
R230	D-2
R231	D-12
R236	C-2
R237	D-3
R238	D-3
R239	D-2
R243	D-3
R246	C-12
R247	D-3
R248	D-12
R250	D-1
R251	C-13
R252	C-13
R253	D-3
R254	C-2
R255	D-2
R256	D-2
R257	D-3
R258	D-2
R259	C-2
R260	C-2
R261	D-2
R262	D-2
R263	C-3
R270	D-12
R272	D-2
R277	D-2
R281	C-2
R282	C-2
R283	D-2
R284	C-2
R285	D-2
R286	D-2
R287	D-2
R288	D-2
R289	D-2
R291	D-11
R292	C-2
R293	D-2
R295	D-2
R301	C-3
R302	B-12
R303	B-11
R304	C-12
R308	B-14
R309	B-13
R310	B-14
R311	B-14
R312	B-1
R313	B-14
R314	C-12
R316	C-13
R317	C-10
R318	B-5
R320	C-3
R322	B-6
R323	B-6
R324	A-6
R325	A-6
R326	C-3
R328	B-10
R330	C-1
R331	B-10
R332	C-10
R333	B-10
R334	B-10
R336	C-14
R337	C-14
R338	C-13
R339	C-14
R340	C-2
R341	A-8
R344	B-1
R345	C-3
R351	B-13
R352	B-10
R353	B-10
R358	B-11
R362	B-10
R364	B-10
R369	B-5
R371	C-3
R372	C-2
R373	C-1
R374	B-1
R375	B-1
R376	B-1
R378	B-1
R380	B-1
R381	B-14
R382	C-13
R383	B-14
R384	B-14
R385	B-14
R389	A-6
R390	D-11
R391	C-3
R392	B-2
R393	B-14
R701	A-9
R702	B-9
R703	A-9
R706	B-8
R707	B-8
R708	B-9
R711	B-7
R712	B-7
R714	B-7
R716	B-9
R717	B-9
R718	A-9
R719	B-9
R721	B-9
R722	B-9
R723	B-9
R724	B-9
R725	B-9
R726	B-9
R727	B-9
R728	B-9
R729	B-9
R730	B-9
R731	B-9
R732	B-9
R733	B-9
R734	B-9
R735	B-9
R736	B-9
R737	B-9
R738	B-9
R739	B-9
R740	B-9
R741	A-7
R742	A-7
R743	A-7
R744	A-9
R745	A-7
R746	A-7
R747	A-7
R748	A-9
R749	A-7
R750	A-7
R751	B-7
R752	B-9
R753	B-7
R754	B-7
R755	B-7
R756	B-9
R759	B-7
R760	B-7
R765	B-7
R766	B-7
R767	B-7
R768	B-7
R790	C-9
Resistor Array	
RA301	C-13
RA302	C-12
RA312	A-6
RA318	A-6
RA319	A-6
RA320	A-6
RA321	B-13
RA322	B-14
RA324	B-13
RA325	B-13
RA327	A-6
RA328	C-13
RA329	C-12
RA338	A-6
RA343	A-6
RA344	A-6
RA345	B-13
RA346	B-13
RA347	A-6
RA348	B-13
RA349	B-13

ADDRESS INFORMATION

3. CAMERA MAIN C.B.A. (VEP23169B)


SENSOR SECTION
PROCESS SECTION
LENS DRIVE SECTION
LENS DRIVE
IC202
IC203
IC204
IC309
IC310
IC305
IC308
IC701
IC702
IC705
FP701
X301
TH701
P302
CL307
Q201
Q202
Q207
Q208
Q301
Q302
D201
D203
D207
D209
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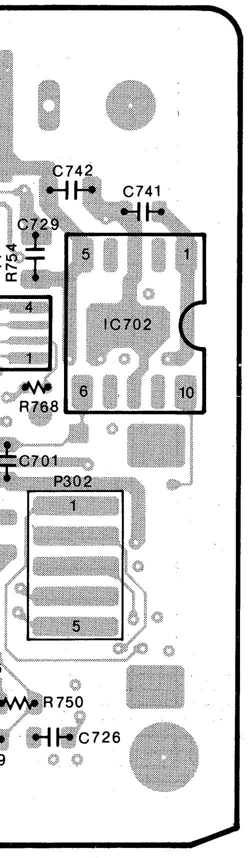
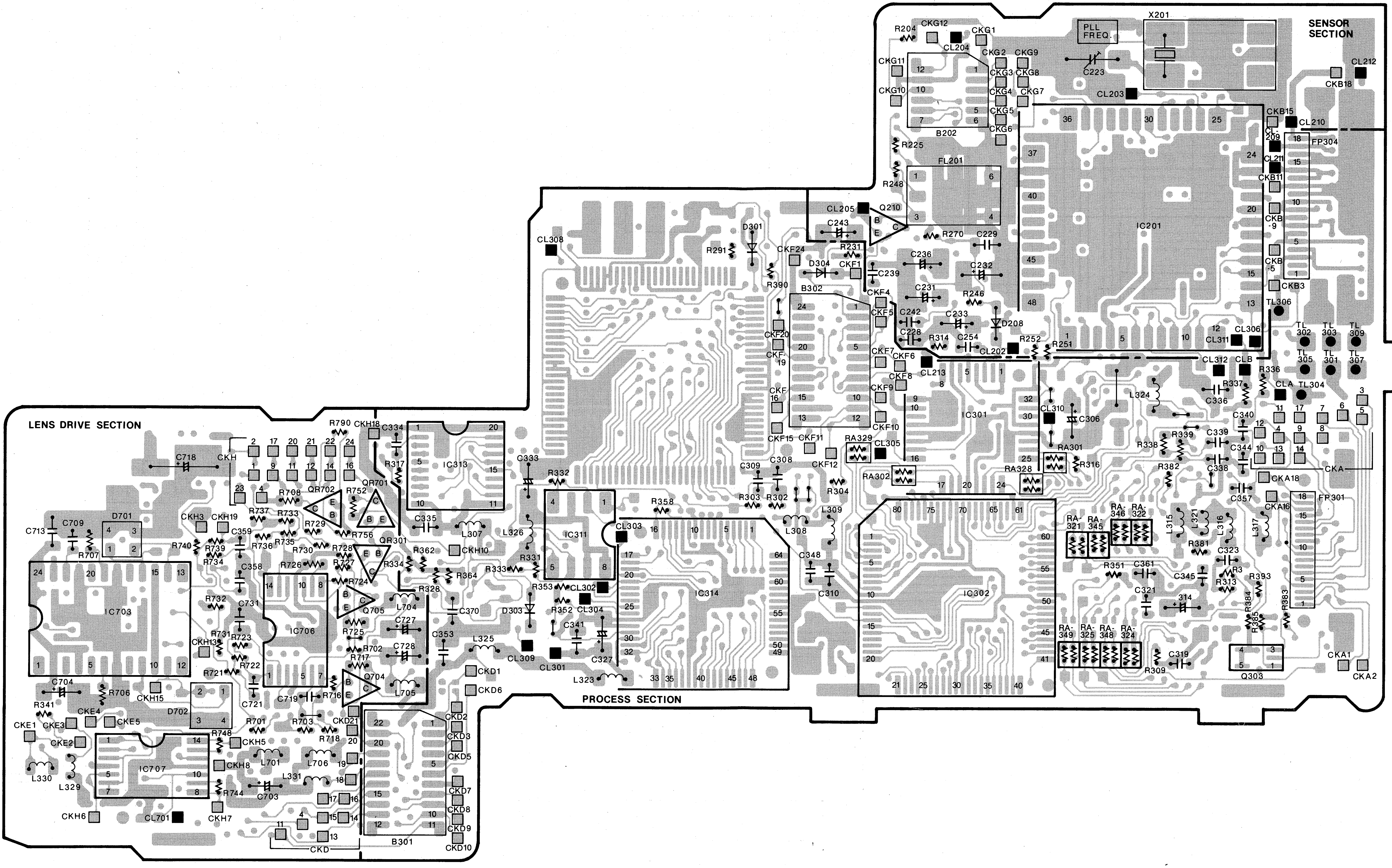
C268
C269
C270
C271
C272
C273
C274
C275
C276
C277
C278
C301
C302
C304
C305
C307
C315
C316
C317
C318
C320
C322
C325
C326
C337
C342
C349
C350
C351
C352
C354
C355
C356
C701
C704
C709
C713
C724
C725
C726
C729
C732
C740
C741
C742
R201
R203
R205
R211
R218
R219
R220
R221
R224
R228
R229
R230
R236
R237
R238
R239
R243
R247
R250
R253
R254
R255
R256
R257
R258
R259
R260
R261
R262
R263
R272
R277
R281
R282
R283
R284
R285
R286
R287
R288
R289
R292
R293
R295
R301
R312
R318
R320
R322
R323
R324
R325
R326
R330
R340
R341
R344
R345
R369
R371
R372
R373
R374
R375
R376
R378
R380
R389
R391
R392
R707
R711
R712
R714
R741
R742
R743
R745
R746
R747
R749
R750
R751
R753
R754
R755
R757
R759
R760
R765
R766
R768
RA312
RA318
RA319
RA320
RA327
RA338
RA343
RA344
RA347
CKE1
CKE2
CKE3
CKH6
E
B
C
A
B
C
D
1
2
3
4
5
6
7
8

(COMPONENT SIDE)

(FOIL SIDE)


C742
C741
C729
R754
IC702
R768
C701
P302
R750
C726

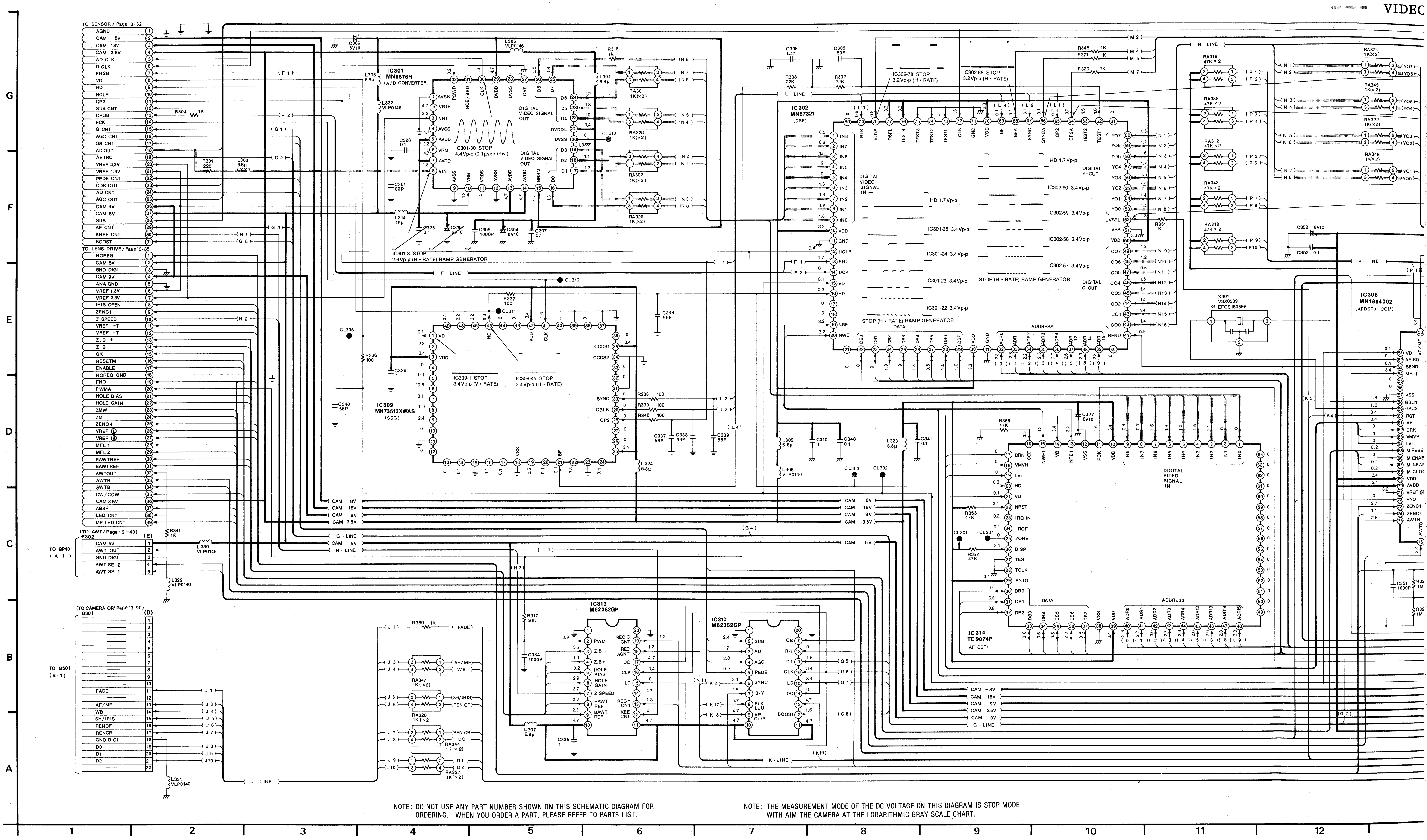
COMPONENT SIDE)


SENSOR SECTION
X201
PLL FREQ.
C223
IC201
B202
FL201
Q210
FP304
LENS DRIVE SECTION
PROCESS SECTION
IC703
IC706
IC707
IC313
IC311
IC314
IC301
IC302
FP301
B301
B302
D701
D702
Q303
CKD
CKA
CLA
CLB

(FOIL SIDE)

8 9 10 11 12 13 14

4. PROCESS SCHEMATIC DIAGRAM

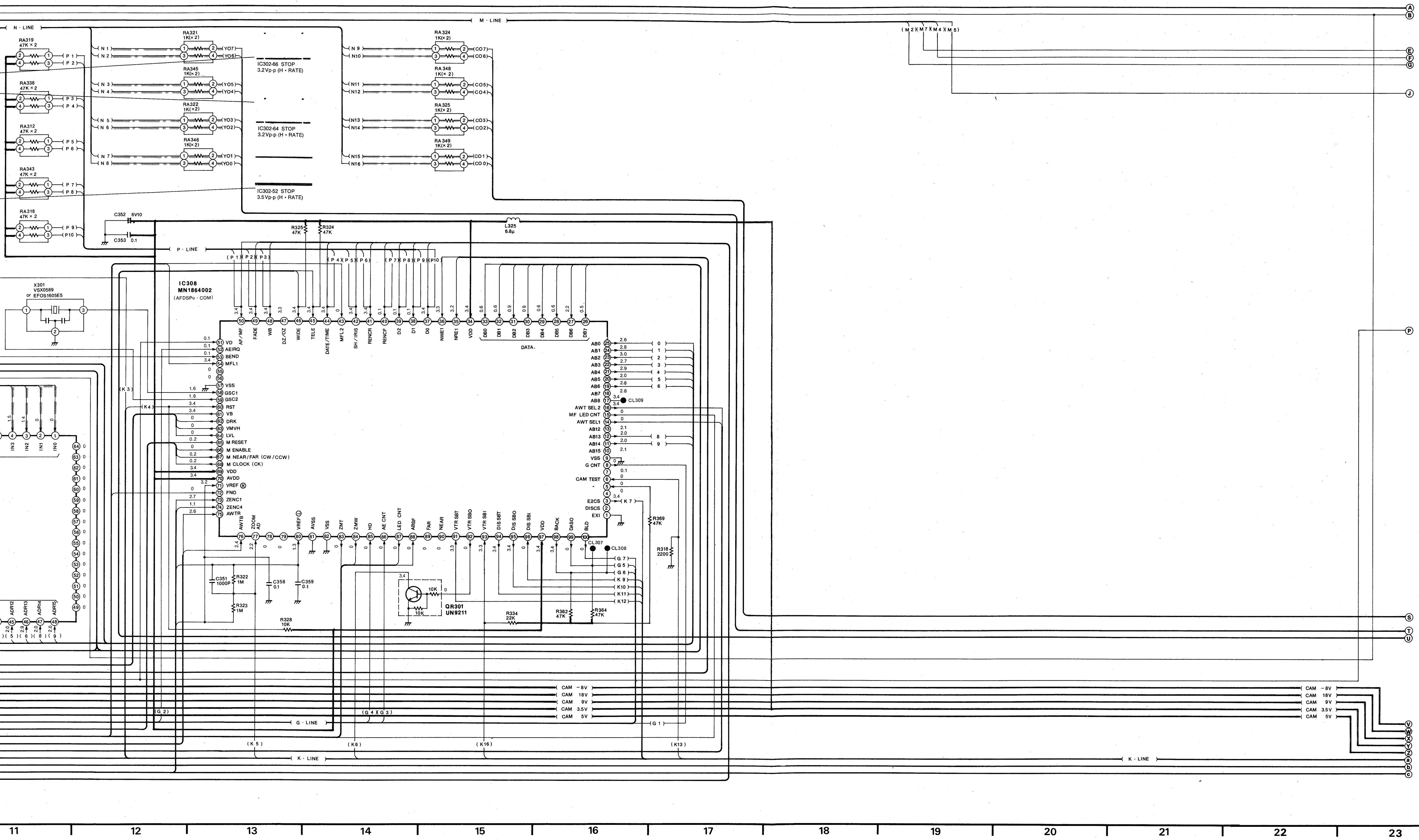

VIDEO
TO SENSOR / Page: 3-32
TO LENS DRIVE / Page: 3-35
(TO AWT / Page: 3-43) P302
TO BP401 (A-1)
(TO CAMERA OP / Page: 3-90) B301
TO B501 (B-1)
IC301 MN6576H (A/D CONVERTER)
IC301-30 STOP 4.4Vp-p (0.1μsec./div.)
IC301-8 STOP 2.6Vp-p (H・RATE) RAMP GENERATOR
DIGITAL VIDEO SIGNAL OUT
IC302 MN67321 (DSP)
IC302-78 STOP 3.2Vp-p (H・RATE)
IC302-68 STOP 3.2Vp-p (H・RATE)
DIGITAL VIDEO SIGNAL IN
DIGITAL Y-OUT
DIGITAL C-OUT
STOP (H・RATE) RAMP GENERATOR
HD 1.7Vp-p
IC309 MN73512XWAS (SSG)
IC309-1 STOP 3.4Vp-p (V・RATE)
IC309-45 STOP 3.4Vp-p (H・RATE)
IC313 M62352GP
IC310 M62352GP
IC314 TC9074F (AF DSP)
IC308 MN1864002 (AFDSPu・COM)
X301 VSX0589 or EFOS1605E5
F・LINE
L・LINE
G・LINE
H・LINE
J・LINE
K・LINE
N・LINE
P・LINE
DATA
ADDRESS
1
2
3
4
5
6
7
8
9
10
11
12
G
F
E
D
C
B
A

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

Back Page:
CAMERA MAIN C.B.A.

VIDEO SIGNAL DIGITAL Y SIGNAL DIGITAL C SIGNAL Y SIGNAL R-Y SIGNAL B-Y SIGNAL


N·LINE
M·LINE
P·LINE
G·LINE
K·LINE
RA319 47K × 2
RA338 47K × 2
RA312 47K × 2
RA343 47K × 2
RA318 47K × 2
RA321 1K(×2)
RA345 1K(×2)
RA322 1K(×2)
RA346 1K(×2)
RA324 1K(×2)
RA348 1K(×2)
RA325 1K(×2)
RA349 1K(×2)
IC302-66 STOP 3.2Vp-p (H·RATE)
IC302-64 STOP 3.2Vp-p (H·RATE)
IC302-52 STOP 3.5Vp-p (H·RATE)
C352 6V10
C353 0.1
R325 47K
R324 47K
L325 6.8μ
X301 VSX0589 or EFOS1605E5
IC308 MN1864002 (AFDSPu·COM)
AF/MF
FADE
WB
DZ/OZ
WIDE
TELE
DATE/TIME
MFL2
SH/IRIS
RENCR
RENCF
D2
D1
D0
NWE1
NRE1
VDD
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
DATA
AB0
AB1
AB2
AB3
AB4
AB5
AB6
AB7
AB8
CL309
AWT SEL 2
MF LED CNT
AWT SEL1
AB12
AB13
AB14
AB15
VSS
G CNT
CAM TEST
E2CS
DISCS
EXI
R369 47K
R318 2200
VD
AEIRQ
BEND
MFL1
VSS
GSC1
GSC2
RST
VB
DRK
VMVH
LVL
M RESET
M ENABLE
M NEAR/FAR (CW/CCW)
M CLOCK (CK)
VDD
AVDD
VREF (H)
FNO
ZENC1
ZENC4
AWTR
AWTB
ZOOM AD
VREF (L)
AVSS
VSS
ZMT
ZMW
HD
AE CNT
LED CNT
ABSF
FAR
NEAR
VTR SBT
VTR SBO
VTR SBI
DIS SBT
DIS SBO
DIS SBI
VDD
BACK
DASO
BLD
CL307
CL308
C351 1000P
R322 1M
R323 1M
C358 0.1
C359 0.1
R328 10K
QR301 UN9211
10K
R334 22K
R362 47K
R364 47K
IN3
IN2
IN1
IN0
ADR12
ADR13
ADR14
ADR15
CAM -8V
CAM 18V
CAM 9V
CAM 3.5V
CAM 5V
11
12
13
14
15
16
17
18
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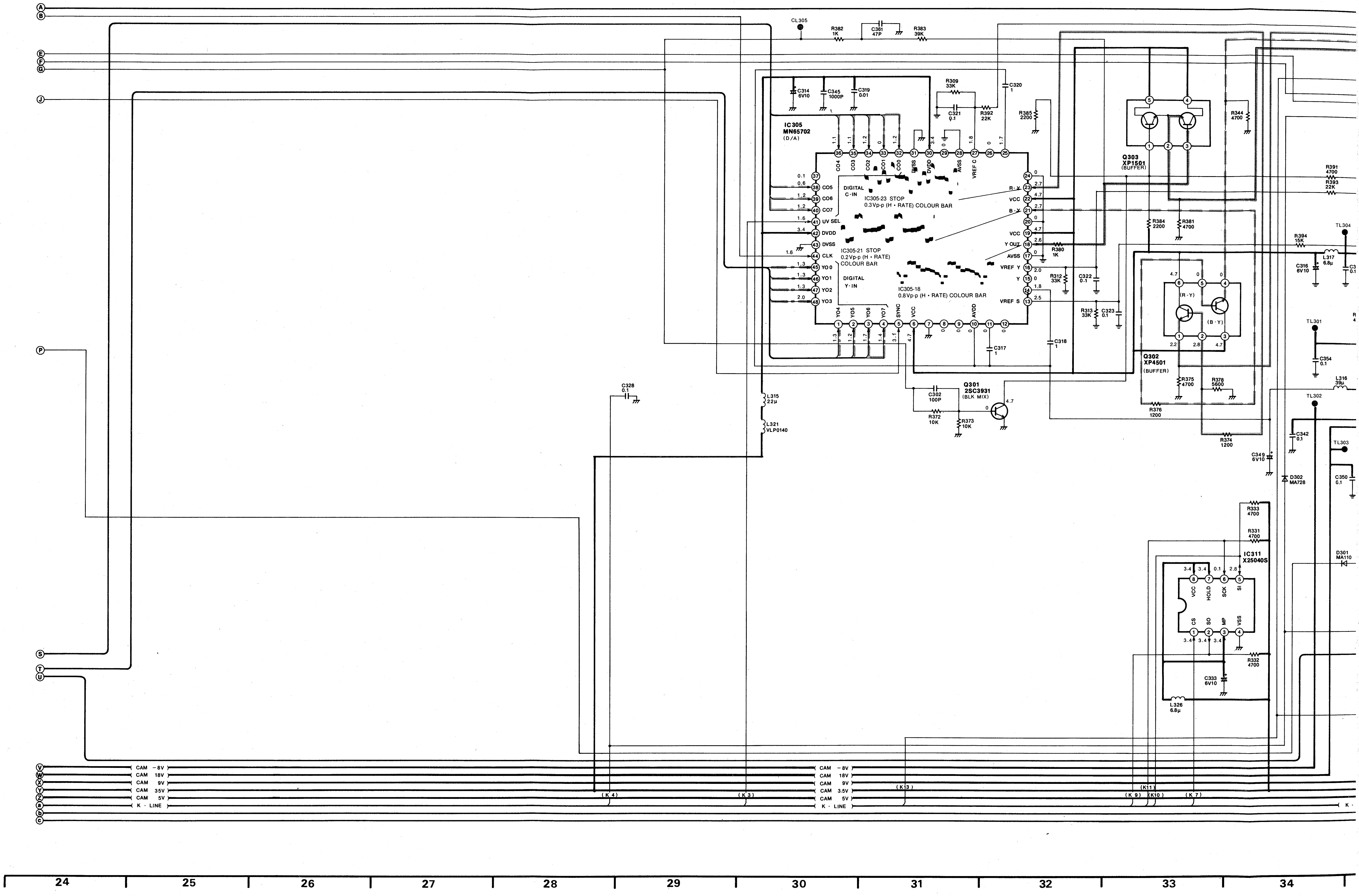
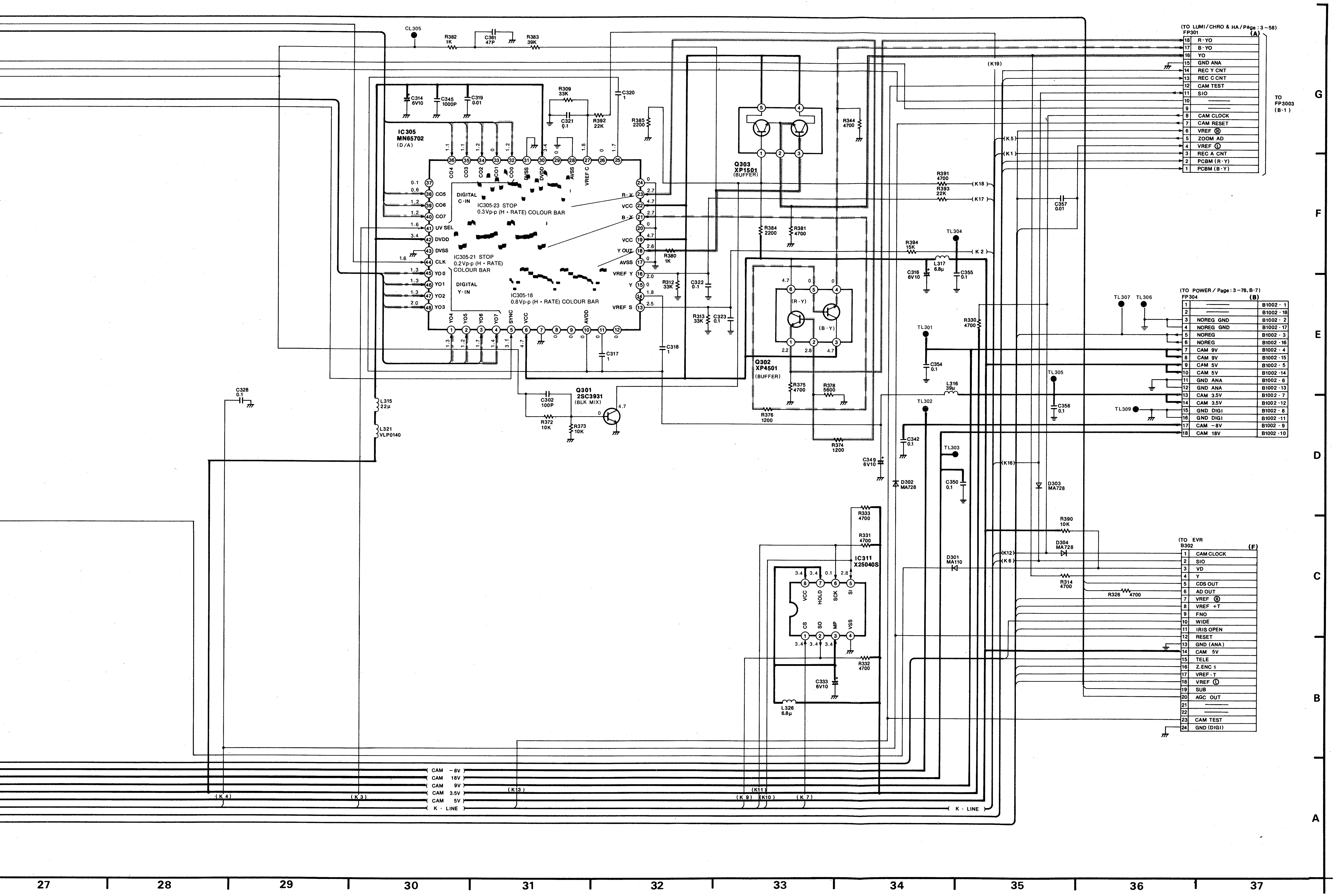
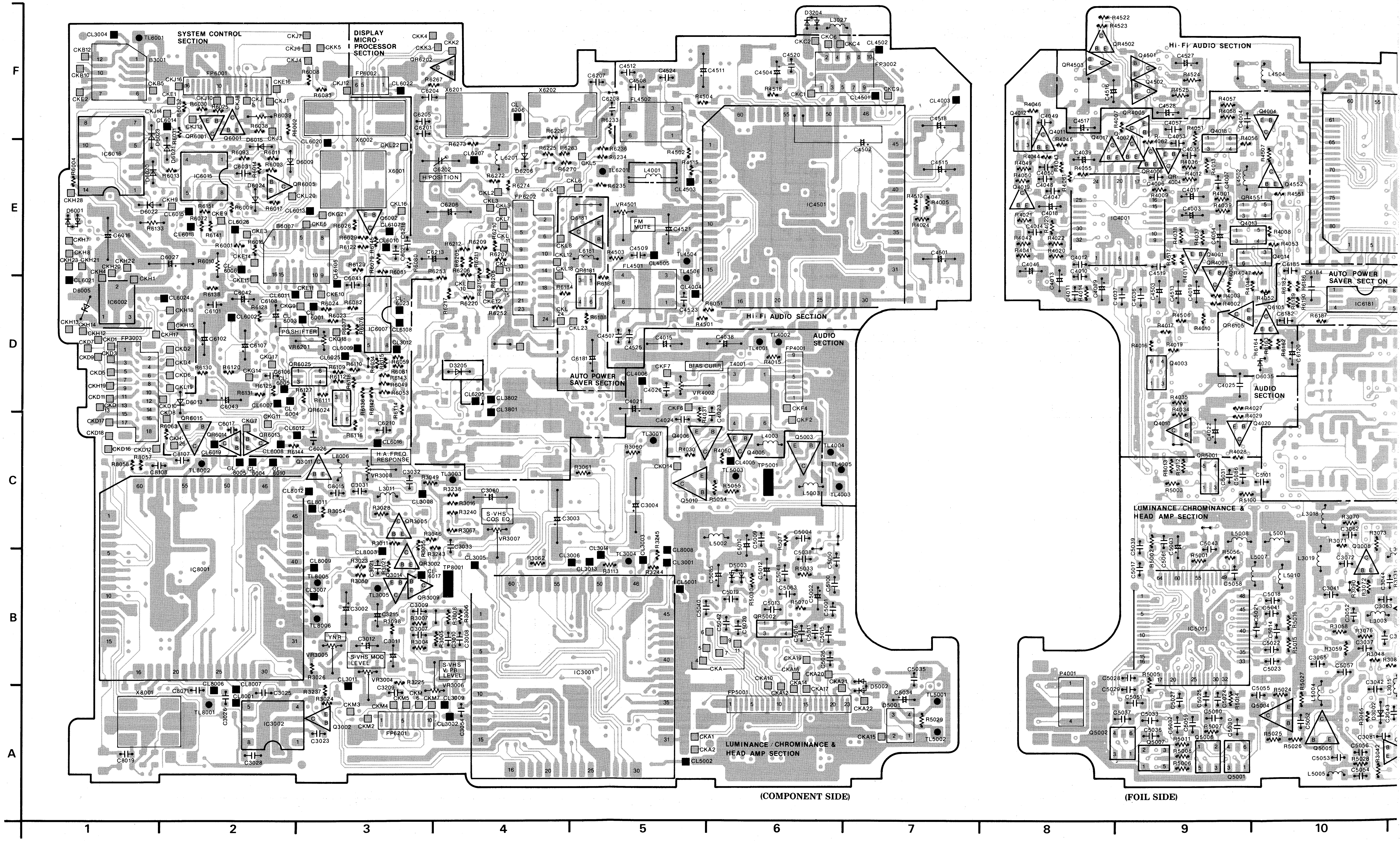
21
22
23

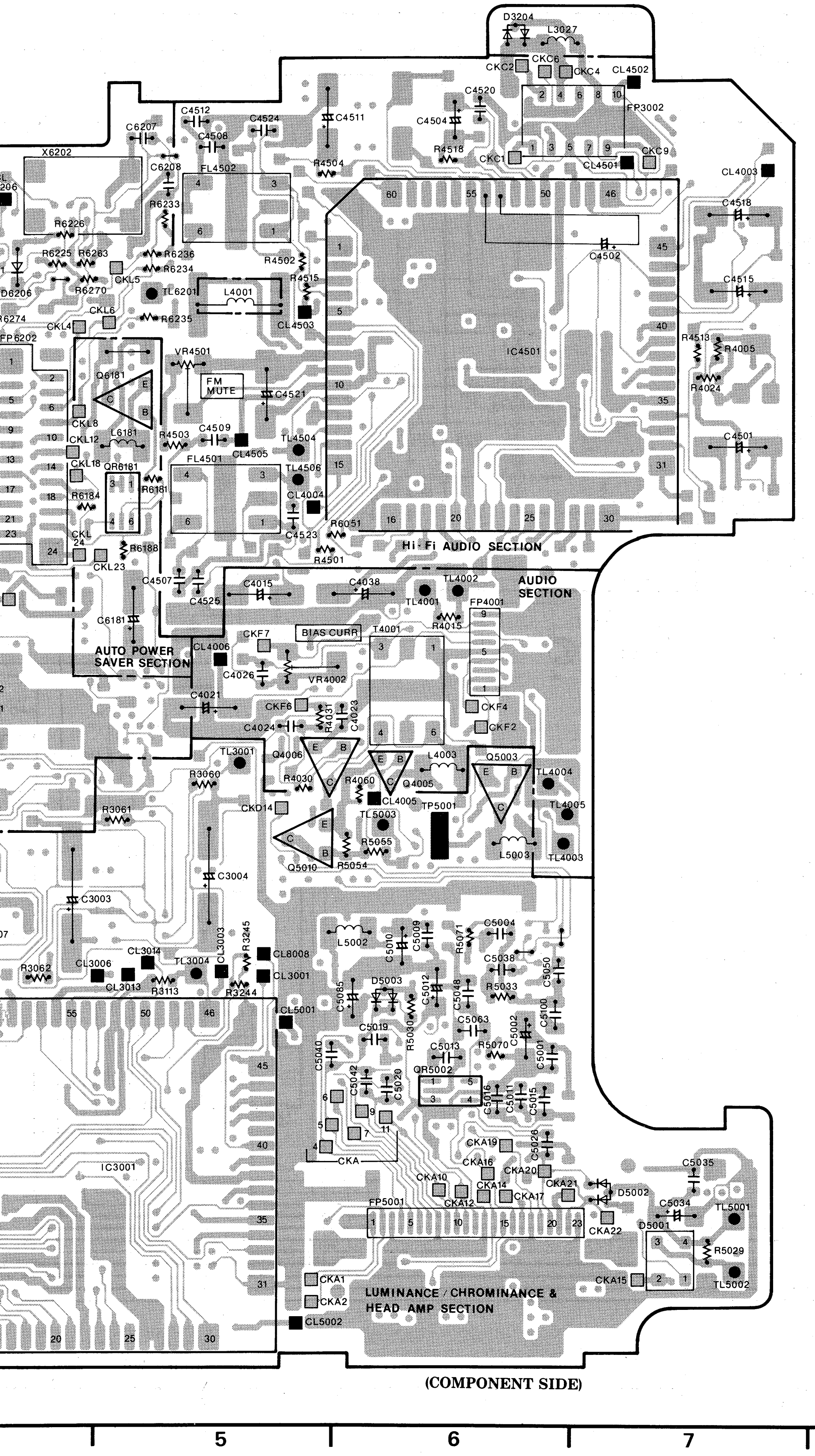

IC305
MN65702
(D/A)
DIGITAL C-IN
DIGITAL Y-IN
IC305-23 STOP 0.3Vp-p (H・RATE) COLOUR BAR
IC305-21 STOP 0.2Vp-p (H・RATE) COLOUR BAR
IC305-18 0.8Vp-p (H・RATE) COLOUR BAR
CO4 CO3 CO2 CO1 CO0 DVSS DVDD AVSS VREF C
CO5 CO6 CO7 UV SEL DVDD DVSS CLK YO0 YO1 YO2 YO3
YO4 YO5 YO6 YO7 SYNC VCC AVDD
R-Y VCC B-Y VCC Y OUT AVSS VREF Y Y VREF S
CL305
R382 1K
C381 47P
R383 39K
C314 6V10
C345 1000P
C319 0.01
R309 33K
C321 0.1
R392 22K
C320 1
R385 2200
R344 4700
Q303
XP1501
(BUFFER)
R391 4700
R393 22K
R384 2200
R381 4700
R380 1K
R312 33K
C322 0.1
R313 33K
C323 0.1
C318 1
C317 1
Q302
XP4501
(BUFFER)
(R-Y)
(B-Y)
R375 4700
R378 5600
R376 1200
R374 1200
R394 15K
C316 6V10
L317 6.8µ
TL304
TL301
C354 0.1
L316 39µ
TL302
C342 0.1
C349 6V10
D302 MA728
TL303
C350 0.1
D301 MA110
C302 100P
R372 10K
R373 10K
Q301
2SC3931
(BLK MIX)
C328 0.1
L315 22µ
L321 VLP0140
R333 4700
R331 4700
IC311
X25040S
VCC HOLD SCK SI
CS SO WP VSS
R332 4700
C333 6V10
L326 6.8µ
A B E F G J P S T U V W X Y Z a b c
CAM -8V
CAM 18V
CAM 9V
CAM 35V
CAM 3.5V
CAM 5V
K・LINE
(K4) (K3) (K13) (K9) (K11) (K10) (K7)
24 25 26 27 28 29 30 31 32 33 34


CL305
R382 1K
C361 47P
R383 39K
C314 6V10
C345 1000P
C319 0.01
R309 33K
C320 1
C321 0.1
R392 22K
R385 2200
IC305 MN65702 (D/A)
DIGITAL C-IN
IC305-23 STOP 0.3Vp-p (H • RATE) COLOUR BAR
IC305-21 STOP 0.2Vp-p (H • RATE) COLOUR BAR
DIGITAL Y-IN
IC305-18 0.8Vp-p (H • RATE) COLOUR BAR
CO4 CO3 CO2 CO1 CO0 DVSS DVDD AVSS VREF C
CO5 CO6 CO7 UV SEL DVDD DVSS CLK YO0 YO1 YO2 YO3
YO4 YO5 YO6 YO7 SYNC VCC AVDD
R-Y VCC B-Y VCC Y OUT AVSS VREF Y Y VREF S
R380 1K
R312 33K
C322 0.1
R313 33K
C323 0.1
C318 1
C317 1
Q303 XP1501 (BUFFER)
R344 4700
R384 2200
R381 4700
Q302 XP4501 (BUFFER)
(R-Y) (B-Y)
R375 4700
R378 5600
R376 1200
R374 1200
Q301 2SC3931 (BLK MIX)
C302 100P
R372 10K
R373 10K
C328 0.1
L315 22µ
L321 VLP0140
R391 4700
R393 22K
R394 15K
TL304
L317 6.8µ
C316 6V10
C355 0.1
C357 0.01
R330 4700
TL301
C354 0.1
L316 39µ
TL302
TL305
C356 0.1
C342 0.1
C349 6V10
D302 MA728
TL303
C350 0.1
D303 MA728
R333 4700
R331 4700
IC311 X25040S
VCC HOLD SCK SI
CS SO WP VSS
R332 4700
C333 6V10
L326 6.8µ
D301 MA110
R390 10K
D304 MA728
R314 4700
R326 4700
TL307 TL306 TL309
(K19) (K5) (K1) (K18) (K17) (K2) (K16) (K12) (K6)
(TO LUMI/CHRO & HA/Page : 3 – 58)
FP301 (A)
18 R-YO
17 B-YO
16 YO
15 GND ANA
14 REC Y CNT
13 REC C CNT
12 CAM TEST
11 SIO
10 ———
9 ———
8 CAM CLOCK
7 CAM RESET
6 VREF Ⓗ
5 ZOOM AD
4 VREF Ⓛ
3 REC A CNT
2 PCBM (R-Y)
1 PCBM (B-Y)
TO FP3003 (B-1)
(TO POWER / Page : 3 – 78, B-7)
FP304 (B)
1 ——— B1002 - 1
2 ——— B1002 - 18
3 NOREG GND B1002 - 2
4 NOREG GND B1002 - 17
5 NOREG B1002 - 3
6 NOREG B1002 - 16
7 CAM 9V B1002 - 4
8 CAM 9V B1002 - 15
9 CAM 5V B1002 - 5
10 CAM 5V B1002 - 14
11 GND ANA B1002 - 6
12 GND ANA B1002 - 13
13 CAM 3.5V B1002 - 7
14 CAM 3.5V B1002 - 12
15 GND DIGI B1002 - 8
16 GND DIGI B1002 - 11
17 CAM –8V B1002 - 9
18 CAM 18V B1002 - 10
(TO EVR
B302 (F)
1 CAM CLOCK
2 SIO
3 VD
4 Y
5 CDS OUT
6 AD OUT
7 VREF Ⓗ
8 VREF +T
9 FNO
10 WIDE
11 IRIS OPEN
12 RESET
13 GND (ANA)
14 CAM 5V
15 TELE
16 Z.ENC 1
17 VREF - T
18 VREF Ⓛ
19 SUB
20 AGC OUT
21 ———
22 ———
23 CAM TEST
24 GND (DIGI)
CAM -8V
CAM 18V
CAM 9V
CAM 3.5V
CAM 5V
K - LINE
(K 4) (K 3) (K13) (K 9) (K11) (K10) (K 7)
K - LINE
G F E D C B A
27 28 29 30 31 32 33 34 35 36 37

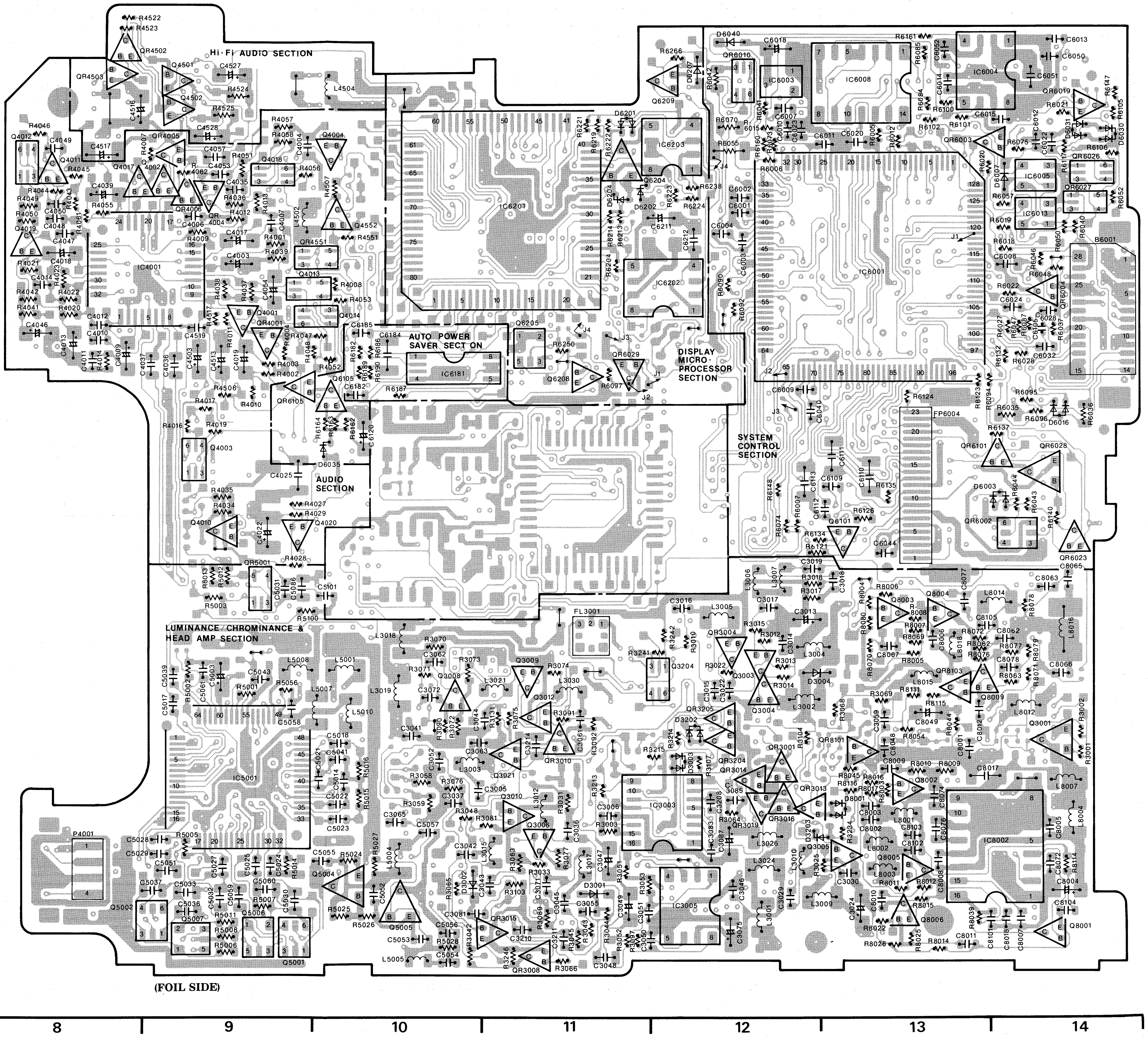
Next Page:
VTR MAIN C.B.A.

5. VTR MAIN C.B.A. (VEP03A55B)


SYSTEM CONTROL SECTION
DISPLAY MICRO-PROCESSOR SECTION
H.POSITION
PG SHIFTER
H.A. FREQ. RESPONSE
S-VHS COS EQ
YNR
S-VHS MOD LEVEL
S-VHS V.PB LEVEL
FM MUTE
Hi-Fi AUDIO SECTION
AUTO POWER SAVER SECTION
BIAS CURR
AUDIO SECTION
LUMINANCE / CHROMINANCE & HEAD AMP SECTION
IC8001
IC3001
IC4501
IC4001
IC5001
IC6181
IC6001
IC6002
IC6015
IC6016
IC6007
IC3002
(COMPONENT SIDE)
(FOIL SIDE)
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10


Hi-Fi AUDIO SECTION
IC4501
AUDIO SECTION
AUTO POWER SAVER SECTION
BIAS CURR
FM MUTE
IC3001
LUMINANCE / CHROMINANCE & HEAD AMP SECTION
FP5001
FP4001
FP3002
FP6202
5
6
7

(COMPONENT SIDE)


Hi-Fi AUDIO SECTION
IC4001
AUTO POWER SAVER SECT ON
IC6181
AUDIO SECTION
IC6201
IC6202
IC6203
DISPLAY MICRO-PROCESSOR SECTION
IC6001
IC6003
IC6004
IC6005
IC6008
IC6013
SYSTEM CONTROL SECTION
FP6004
B6001
LUMINANCE / CHROMINANCE & HEAD AMP SECTION
IC5001
IC3003
IC3005
IC8002
FL3001
P4001
8
9
10
11
12
13
14

(FOIL SIDE)

VTR MAIN C.B.A.

Integrated Circuit	
IC3001	B-4
IC3002	A-2
IC3003	B-11
IC3005	A-12
IC4001	E-8
IC4501	E-6
IC5001	B-9
IC6001	E-13
IC6002	D-1
IC6003	F-12
IC6004	F-13
IC6005	E-14
IC6007	D-3
IC6008	F-13
IC6013	E-14
IC6015	E-2
IC6016	E-1
IC6181	D-10
IC6201	E-11
IC6202	E-11
IC6203	F-12
IC8001	B-2
IC8002	B-13

Transistor	
Q3001	B-14
Q3002	A-3
Q3003	C-12
Q3004	B-12
Q3005	B-13
Q3006	B-11
Q3008	B-10
Q3009	C-11
Q3010	B-11
Q3011	C-3
Q3012	B-11
Q3014	B-3
Q3021	B-11
Q3204	C-11
Q4001	E-9
Q4002	E-9
Q4003	D-9
Q4004	F-10
Q4005	C-6
Q4006	C-6
Q4010	C-9
Q4011	F-8
Q4012	F-8
Q4013	E-9
Q4014	E-9
Q4017	E-8
Q4018	E-9
Q4019	E-8
Q4020	C-9
Q4501	F-9
Q4502	F-9
Q4552	E-10
Q5001	A-9
Q5002	A-8
Q5003	C-6
Q5004	A-10
Q5005	A-10
Q5006	A-9
Q5007	A-9
Q5010	C-5
Q6001	F-2
Q6002	E-3
Q6101	C-13
Q6105	D-10
Q6181	E-5
Q6204	F-11
Q6205	D-11
Q6208	D-11
Q6209	F-12
Q8001	A-14
Q8002	B-13
Q8003	C-13
Q8004	C-13
Q8005	A-13
Q8006	A-13
Q8009	C-13

Transistor & Resistor	
QR3001	B-12
QR3002	B-3
QR3004	C-12
QR3005	C-3
QR3008	A-11
QR3009	B-3
QR3010	B-11
QR3013	B-12
QR3014	B-12
QR3015	A-11
QR3016	B-12
QR3019	B-12
QR3204	B-12
QR3205	B-12
QR4001	E-9
QR4004	E-9
QR4005	F-9
QR4006	E-9
QR4502	F-8
QR4503	F-8
QR4551	E-9
QR5001	C-9
QR5002	B-6
QR6001	F-2
QR6002	C-14
QR6003	F-13
QR6004	E-14
QR6005	E-2
QR6010	F-12
QR6013	C-2
QR6014	C-2
QR6015	C-2
QR6019	F-14
QR6023	C-14
QR6024	D-3
QR6025	D-3
QR6026	E-14
QR6027	E-14
QR6028	D-14
QR6029	D-11
QR6101	D-14
QR6105	D-9
QR6181	D-5
QR6202	F-3
QR8101	B-13
QR8103	C-13

Diode	
D3001	A-11
D3002	A-10
D3003	B-12
D3004	C-12
D3202	B-12
D3203	B-12
D3204	F-6
D3205	D-4
D5001	A-7
D5002	B-7
D5003	B-6
D6001	E-1
D6003	D-14
D6005	D-1
D6007	E-14
D6009	E-2
D6013	D-2
D6015	E-2
D6016	D-14
D6020	E-1
D6021	E-2
D6022	E-1
D6023	F-1
D6024	E-2
D6030	F-14
D6031	F-14
D6035	D-10
D6040	F-12
D6201	F-11
D6202	E-11
D6204	E-11
D6206	E-4
D6207	F-12
D8001	B-13

Transformer	
T4001	D-6

Test Point	
CL3001	B-5
CL3002	A-4
CL3003	B-5
CL3004	F-1
CL3005	B-4
CL3006	B-4
CL3007	B-3
CL3008	C-3
CL3009	A-4
CL3011	B-3
CL3012	D-3
CL3013	B-5
CL3014	B-5
CL3801	D-4
CL3802	D-4
CL4003	F-7
CL4004	D-5
CL4005	C-6
CL4006	D-5
CL4501	F-7
CL4502	F-7
CL4503	E-5
CL4505	E-5
CL5001	B-5
CL5002	A-5
CL6001	D-3
CL6002	D-2
CL6003	D-3
CL6004	D-2
CL6005	D-2
CL6006	E-2
CL6007	D-2
CL6008	C-2
CL6009	D-3
CL6010	E-3
CL6011	D-2
CL6012	C-2
CL6013	E-3
CL6014	F-2
CL6015	E-2
CL6016	C-3
CL6017	B-3
CL6018	E-2
CL6019	C-2
CL6020	E-3
CL6021	D-1
CL6022	F-3
CL6023	D-3
CL6024	D-1
CL6025	D-3
CL6026	E-2
CL6105	D-3
CL6107	E-3
CL6108	D-3
CL6205	D-4
CL6206	F-4
CL6207	E-4
CL8001	A-2
CL8003	C-3
CL8004	C-2
CL8005	C-2
CL8006	A-2
CL8007	A-2
CL8008	B-5
CL8009	B-3
CL8010	C-2
CL8011	C-3
CL8012	C-3
TL3001	C-5
TL3003	C-4
TL3004	B-5
TL3005	B-3
TL4001	D-6
TL4002	D-6
TL4003	C-6
TL4004	C-6
TL4005	C-6
TL4504	E-5
TL4506	D-5
TL5001	A-7
TL5002	A-7
TL5003	C-6
TL6001	F-1
TL6201	E-5
TL8001	A-2
TL8002	C-2
TL8005	B-3
TL8006	B-3
TP5001	C-6
TP8001	B-4

Adjustment	
C6202	E-4
VR3004	B-3
VR3005	B-3
VR3006	B-3
VR3007	C-4
VR3008	C-3
VR4002	D-5
VR4501	E-5
VR6201	D-3

Connector	
B3001	F-1
B6001	E-14
B6007	E-2
FP3002	F-6
FP3003	D-1
FP4001	D-6
FP5001	A-6
FP6001	F-2
FP6002	F-3
FP6004	D-13
FP6201	A-3
FP6202	E-4
P4001	A-8

Crystal Oscillator	
X6001	E-3
X6002	F-3
X6201	F-4
X6202	F-4
X8001	A-1

Filter	
FL3001	C-11
FL4501	D-5
FL4502	F-5

Coil	
L3001	A-12
L3002	B-12
L3003	B-10
L3004	C-12
L3005	C-12
L3006	C-12
L3007	C-12
L3009	A-12
L3010	A-12
L3011	C-3
L3012	B-11
L3015	A-11
L3017	A-11
L3018	C-10
L3019	B-10
L3021	B-11
L3024	A-12
L3026	B-12
L3027	F-6
L3030	B-11
L4001	E-5
L4003	C-6
L4502	E-9
L4504	F-10
L5001	C-10
L5002	C-6
L5003	C-6
L5004	A-10
L5005	A-10
L5007	B-9
L5008	C-9
L5010	B-10
L6181	E-5
L6201	E-4
L8001	B-13
L8002	B-13
L8003	A-13
L8004	B-14
L8006	C-3
L8007	B-14
L8012	B-14
L8014	C-13
L8015	C-13
L8016	C-14
L8018	C-13

Capacitor	
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C3003	C-4
C3004	C-5
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C3009	B-3
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C3012	B-3
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C3024	A-13
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C3026	A-2
C3028	A-2
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C3032	C-3
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C3043	A-11
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C3060	C-4
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C4004	F-9
C4006	E-9
C4007	E-9
C4009	D-8
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C6184	D-10
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C8018	A-14
C8019	A-1
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C8062	C-14
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C8065	C-14
C8066	C-14
C8067	C-13
C8071	A-2
C8072	A-14
C8074	B-13
C8076	B-13
C8077	C-13
C8078	C-14
C8101	A-13
C8102	B-13
C8103	B-13
C8104	A-14
C8105	C-13
C8107	C-2
C8108	C-1

Resistor	
R3001	B-14
R3002	B-14
R3003	B-11
R3004	B-3
R3005	B-4
R3006	B-4
R3007	B-3
R3008	B-4
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R3011	C-3
R3012	C-12
R3013	C-12
R3014	C-12
R3015	C-12
R3016	C-4
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R3098	B-3
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R3245	B-5
R3246	A-11
R4001	E-9
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R4012	E-9
R4013	E-9
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R4019	D-9
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R4506	D-9
R4507	E-10
R4513	E-7
R4515	E-5
R4517	E-9
R4518	F-6
R4522	F-8
R4523	F-8
R4524	F-9
R4525	F-9
R4551	E-10
R5001	B-9
R5002	C-9

ADDRESS INFORMATION

VTR MAIN C.B.A.

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A-2

CL8007	A-2
CL8008	B-5
CL8009	B-3
CL8010	C-2
CL8011	C-3
CL8012	C-3
TL3001	C-5
TL3003	C-4
TL3004	B-5
TL3005	B-3
TL4001	D-6
TL4002	D-6
TL4003	C-6
TL4004	C-6
TL4005	C-6
TL4504	E-5
TL4506	D-5
TL5001	A-7
TL5002	A-7
TL5003	C-6
TL6001	F-1
TL6201	E-5
TL8001	A-2
TL8002	C-2
TL8005	B-3
TL8006	B-3
TP5001	C-6
TP8001	B-4
Adjustment	
C6202	E-4
VR3004	B-3
VR3005	B-3
VR3006	B-3
VR3007	C-4
VR3008	C-3
VR4002	D-5
VR4501	E-5
VR6201	D-3
Connector	
B3001	F-1
B6001	E-14
B6007	E-2
FP3002	F-6
FP3003	D-1
FP4001	D-6
FP5001	A-6
FP6001	F-2
FP6002	F-3
FP6004	D-13
FP6201	A-3
FP6202	E-4
P4001	A-8
Crystal Oscillator	
X6001	E-3
X6002	F-3
X6201	F-4
X6202	F-4
X8001	A-1
Filter	
FL3001	C-11
FL4501	D-5
FL4502	F-5
Coil	
L3001	A-12
L3002	B-12
L3003	B-10
L3004	C-12
L3005	C-12
L3006	C-12
L3007	C-12
L3009	A-12
L3010	A-12
L3011	C-3

L3012	B-11
L3015	A-11
L3017	A-11
L3018	C-10
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L3024	A-12
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L8012	B-14
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L8018	C-13
Capacitor	
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C8010	A-13
C8011	A-13
C8012	B-13
C8015	C-3
C8017	B-13
C8018	A-14
C8019	A-1
C8048	B-13
C8049	B-13
C8062	C-14
C8063	C-14
C8065	C-14
C8066	C-14
C8067	C-13
C8071	A-2
C8072	A-14
C8074	B-13
C8076	B-13
C8077	C-13
C8078	C-14
C8101	A-13
C8102	B-13
C8103	B-13
C8104	A-14
C8105	C-13
C8107	C-2
C8108	C-1

Resistor	
R3001	B-14
R3002	B-14
R3003	B-11
R3004	B-3
R3005	B-4
R3006	B-4
R3007	B-3
R3008	B-4
R3010	C-12
R3011	C-3
R3012	C-12
R3013	C-12
R3014	C-12
R3015	C-12
R3016	C-4
R3018	C-12
R3021	B-3
R3022	C-12
R3023	B-3
R3024	A-3
R3025	A-12
R3026	B-3
R3028	C-3
R3031	B-11
R3033	A-11
R3042	A-10
R3043	A-11
R3044	A-11
R3045	A-11
R3046	C-3
R3048	B-10
R3049	C-3
R3051	A-11
R3052	A-11
R3053	A-11
R3054	C-3
R3055	C-3
R3058	B-10
R3059	B-10
R3060	C-5
R3061	C-5
R3062	B-4
R3063	A-11
R3064	B-12
R3065	A-10
R3066	A-11
R3067	C-4
R3068	B-13
R3069	B-13
R3070	C-10
R3071	C-10
R3072	B-10
R3073	C-10
R3074	C-11
R3075	B-11
R3076	B-10
R3077	A-11
R3080	B-3
R3081	B-10
R3089	A-11
R3090	B-10
R3091	B-11
R3092	B-11
R3097	A-11
R3098	B-3
R3103	A-11
R3104	B-12
R3107	B-12
R3113	B-5
R3131	B-11
R3213	B-11
R3214	B-12
R3215	B-11
R3225	B-3
R3234	B-13
R3237	A-3

R3238	C-4
R3240	C-4
R3241	C-12
R3242	C-12
R3243	C-3
R3244	B-5
R3245	B-5
R3246	A-11
R4001	E-9
R4002	D-9
R4003	D-9
R4004	D-9
R4005	E-7
R4007	F-8
R4008	E-10
R4009	E-9
R4010	D-9
R4011	E-9
R4012	E-9
R4013	E-9
R4014	D-8
R4015	D-6
R4016	D-9
R4017	D-9
R4019	D-9
R4020	E-8
R4021	E-8
R4022	E-8
R4023	E-8
R4024	E-7
R4027	D-9
R4028	C-9
R4029	C-9
R4030	C-5
R4031	C-5
R4034	C-9
R4035	D-9
R4036	E-9
R4037	E-9
R4038	E-9
R4039	E-9
R4041	E-8
R4042	E-8
R4043	E-8
R4044	E-8
R4045	E-8
R4046	F-8
R4047	E-9
R4048	D-9
R4049	E-8
R4050	E-8
R4051	F-9
R4052	D-10
R4053	E-10
R4055	E-8
R4056	E-9
R4057	F-9
R4058	F-9
R4060	C-6
R4061	E-8
R4062	E-9
R4501	D-5
R4502	E-5
R4503	E-5
R4504	F-5
R4506	D-9
R4507	E-10
R4513	E-7
R4515	E-5
R4517	E-9
R4518	F-6
R4522	F-8
R4523	F-8
R4524	F-9
R4525	F-9
R4551	E-10
R5001	B-9
R5002	C-9

R5003	C-9
R5005	B-9
R5006	A-9
R5007	A-9
R5008	A-9
R5011	A-9
R5012	C-9
R5013	C-9
R5014	A-9
R5015	B-10
R5016	B-10
R5024	A-10
R5025	A-10
R5026	A-10
R5027	A-10
R5028	A-10
R5029	A-7
R5030	B-6
R5033	B-6
R5054	C-6
R5055	C-6
R5056	B-9
R5070	B-6
R5071	C-6
R5072	C-9
R5100	C-9
R6001	E-2
R6002	F-2
R6003	E-2
R6004	E-1
R6005	F-13
R6006	F-12
R6007	C-12
R6008	F-3
R6009	E-2
R6010	E-2
R6011	E-2
R6012	F-13
R6013	E-2
R6014	E-2
R6015	F-12
R6016	E-2
R6017	E-2
R6018	E-14
R6019	E-14
R6020	F-13
R6021	F-14
R6022	E-14
R6023	D-3
R6024	D-3
R6025	F-2
R6026	E-3
R6027	E-14
R6028	D-14
R6029	E-3
R6030	F-2
R6031	F-2
R6032	F-2
R6034	D-3
R6035	D-14
R6036	D-14
R6037	E-14
R6038	F-2
R6039	F-2
R6040	E-14
R6041	F-12
R6042	F-12
R6043	D-14
R6044	D-14
R6046	E-14
R6047	E-14
R6048	E-14
R6049	D-3
R6050	E-14
R6051	D-5
R6052	E-14
R6053	D-3
R6055	F-12

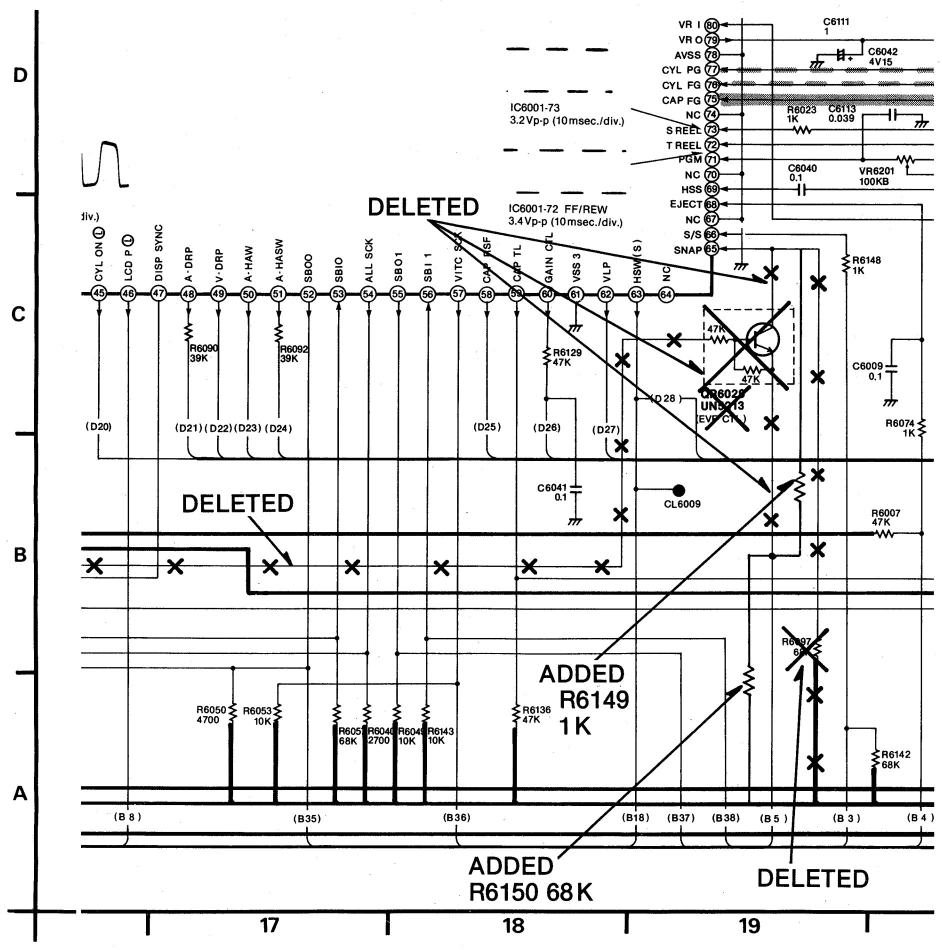
R6057	E-14
R6059	D-3
R6061	D-3
R6063	C-2
R6070	F-12
R6072	E-2
R6073	F-12
R6074	C-12
R6075	F-14
R6076	D-3
R6077	D-3
R6079	E-3
R6080	E-3
R6081	E-3
R6082	D-3
R6083	F-3
R6084	F-13
R6085	F-13
R6087	E-14
R6090	E-12
R6092	E-12
R6093	E-2
R6094	D-13
R6095	D-14
R6096	D-14
R6097	D-11
R6100	F-13
R6101	F-13
R6102	F-13
R6105	F-14
R6106	F-14
R6109	D-3
R6110	D-3
R6111	D-3
R6112	D-3
R6114	D-3
R6115	D-3
R6116	C-3
R6117	F-14
R6118	D-3
R6120	D-2
R6121	C-12
R6122	E-3
R6123	D-13
R6124	D-13
R6125	D-2
R6126	C-13
R6127	D-3
R6128	D-2
R6129	E-3
R6130	D-2
R6131	D-2
R6132	D-14
R6133	E-1
R6134	C-12
R6135	D-13
R6136	D-3
R6137	D-14
R6138	D-2
R6140	C-14
R6141	E-2
R6142	D-3
R6143	D-3
R6144	C-2
R6145	E-3
R6147	F-14
R6148	D-12
R6151	E-2
R6160	F-12
R6161	F-13
R6162	D-10
R6163	D-10
R6164	D-10
R6181	D-5
R6182	D-10
R6184	D-4
R6186	D-10
R6187	D-10

R6188	D-5
R6189	D-10
R6190	D-10
R6204	E-11
R6205	E-4
R6206	E-4
R6207	E-4
R6208	E-4
R6209	E-4
R6210	E-4
R6211	E-4
R6212	E-4
R6213	E-11
R6214	E-11
R6215	E-4
R6217	D-4
R6219	F-11
R6220	D-4
R6221	F-11
R6222	F-11
R6223	E-12
R6224	E-12
R6225	E-4
R6226	F-4
R6233	F-5
R6234	E-5
R6235	E-5
R6236	E-5
R6238	E-12
R6250	D-11
R6252	D-4
R6253	D-4
R6263	E-4
R6266	F-12
R6267	F-3
R6270	E-4
R6272	E-4
R6273	E-4
R6274	E-4
R8003	B-13
R8004	C-13
R8005	C-13
R8006	C-13
R8007	C-13
R8008	C-13
R8009	B-13
R8010	B-13
R8011	A-13
R8012	A-13
R8014	A-13
R8015	A-13
R8016	B-13
R8017	B-13
R8022	A-13
R8025	A-13
R8026	A-13
R8039	A-13
R8044	B-13
R8045	B-13
R8054	B-13
R8057	C-1
R8058	C-1
R8062	C-13
R8063	C-14
R8069	C-13
R8070	C-13
R8071	C-14
R8072	C-13
R8076	C-13
R8077	C-14
R8078	C-14
R8079	C-14
R8080	C-13
R8111	B-13
R8114	A-14
R8115	B-13
R8116	B-13

Next Page:
SYSTEM CTL/DISPLAY/LUMICHRO Section

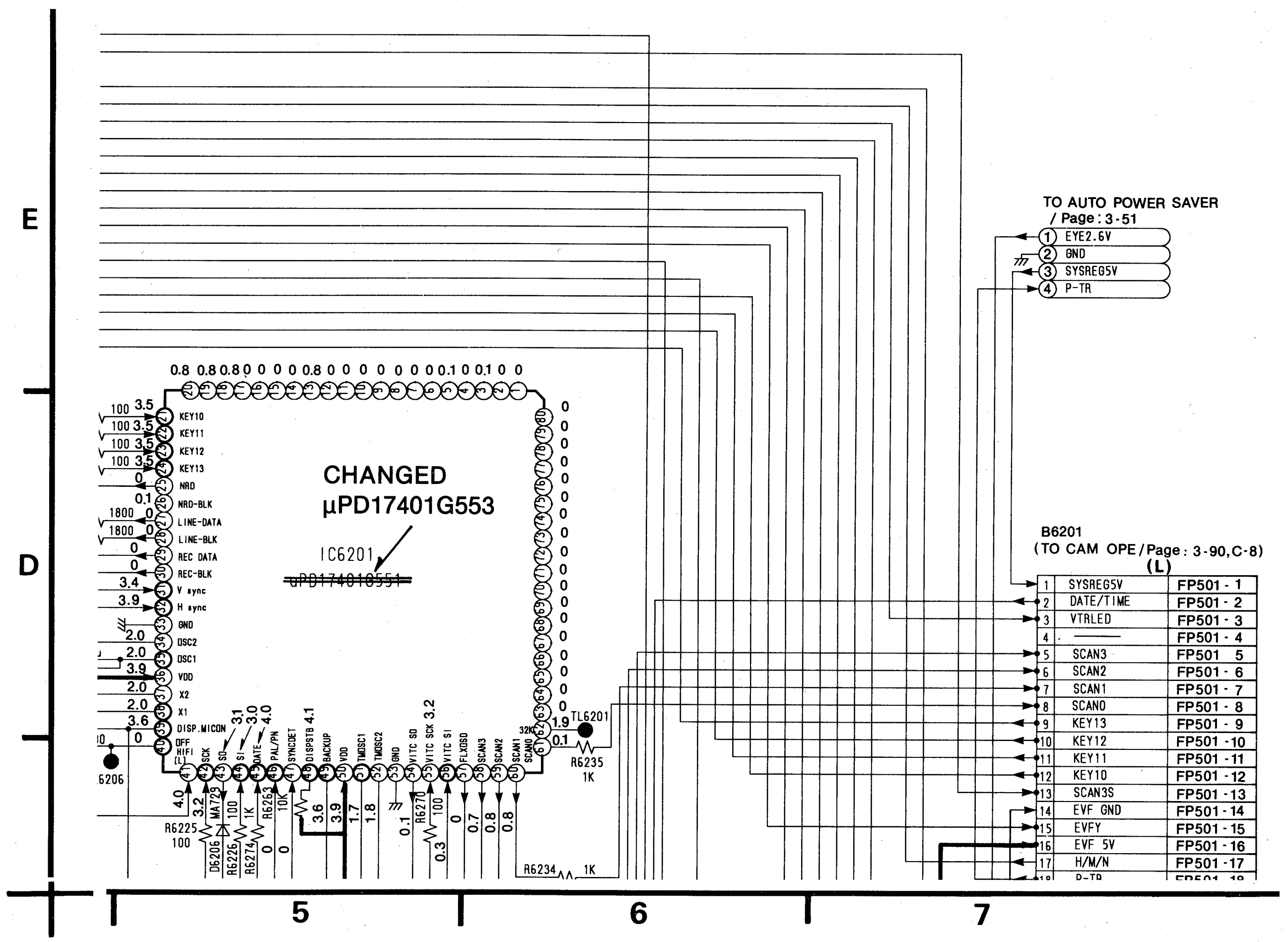
6. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM

NOTE: See NV-S85E/B/A, S850EN Service Manual (Order NO. VMD9308M124) Page: 3-44


D
C
B
A
DELETED
DELETED
ADDED
R6149
1K
ADDED
R6150 68K
DELETED
IC6001-73
3.2Vp-p (10msec./div.)
IC6001-72 FF/REW
3.4Vp-p (10msec./div.)
CL6009
17
18
19

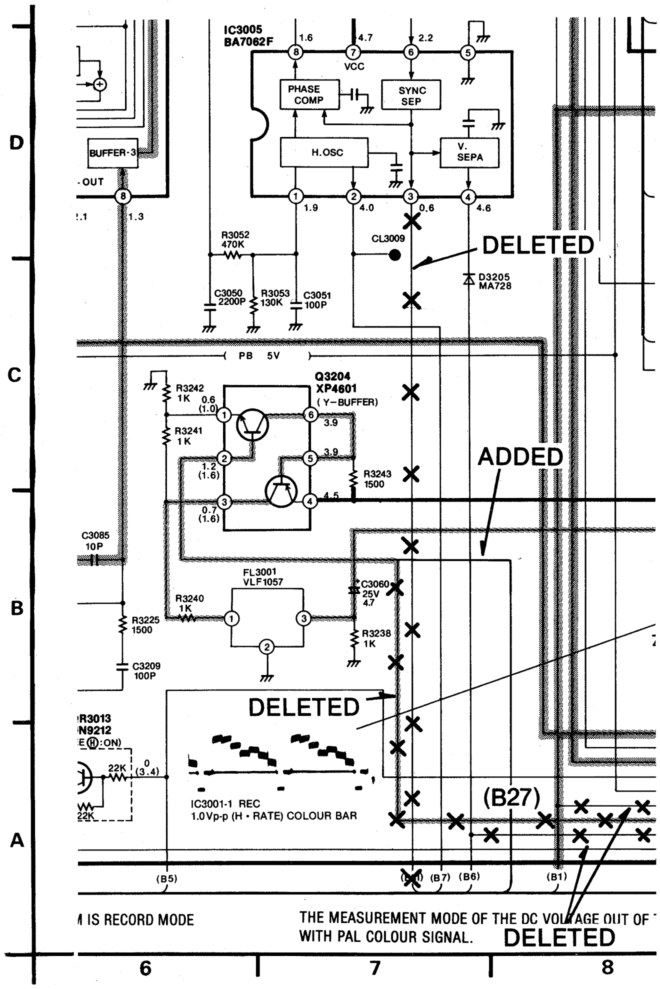
7. DISPLAY MICROPROCESSOR SCHEMATIC DIAGRAM

NOTE: See NV-S85E/B/A, S850EN Service Manual (Order NO. VMD9308M124) Page: 3-55


E
D
CHANGED
µPD17401G553
IC6201
~~µPD17401G551~~
TL6201
R6235
1K
TO AUTO POWER SAVER
/ Page: 3-51
1 EYE2.6V
2 GND
3 SYSREG5V
4 P-TR
B6201
(TO CAM OPE/Page: 3-90, C-8)
(L)
1 SYSREG5V FP501 - 1
2 DATE/TIME FP501 - 2
3 VTRLED FP501 - 3
4 FP501 - 4
5 SCAN3 FP501 5
6 SCAN2 FP501 - 6
7 SCAN1 FP501 - 7
8 SCAN0 FP501 - 8
9 KEY13 FP501 - 9
10 KEY12 FP501 -10
11 KEY11 FP501 -11
12 KEY10 FP501 -12
13 SCAN3S FP501 -13
14 EVF GND FP501 - 14
15 EVFY FP501 - 15
16 EVF 5V FP501 - 16
17 H/M/N FP501 -17
5
6
7

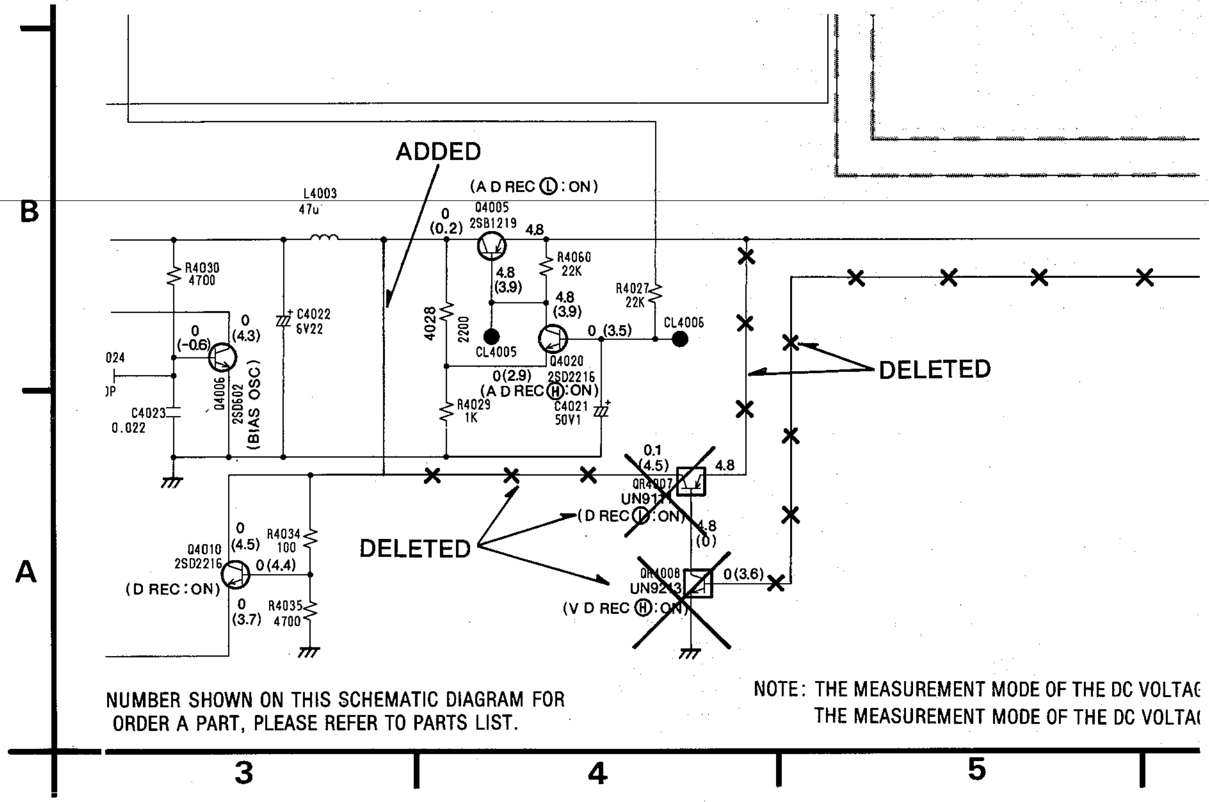
8. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIAGRAM

NOTE: See NV-S85E/B/A, S850EN Service Manual (Order NO. VMD9308M124)
Page: 3-58


IC3005
BA7062F
1.6
4.7
2.2
VCC
PHASE COMP
SYNC SEP
H.OSC
V. SEPA
1.9
4.0
0.6
4.6
BUFFER-3
OUT
1.3
R3052 470K
CL3009
DELETED
D3205 MA728
C3050 2200P
R3053 130K
C3051 100P
PB 5V
Q3204
XP4601
(Y-BUFFER)
R3242 1K
0.6 (1.0)
R3241 1K
3.9
3.9
1.2 (1.6)
0.7 (1.6)
R3243 1500
4.5
ADDED
C3085 10P
FL3001 VLF1057
R3240 1K
C3060 25V 4.7
R3238 1K
R3225 1500
C3209 100P
R3013
N9212
22K
0 (3.4)
22K
DELETED
IC3001-1 REC
1.0Vp-p (H · RATE) COLOUR BAR
(B27)
(B5)
(B7)
(B6)
(B1)
IS RECORD MODE
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF
WITH PAL COLOUR SIGNAL.
DELETED
D
C
B
A
6
7
8

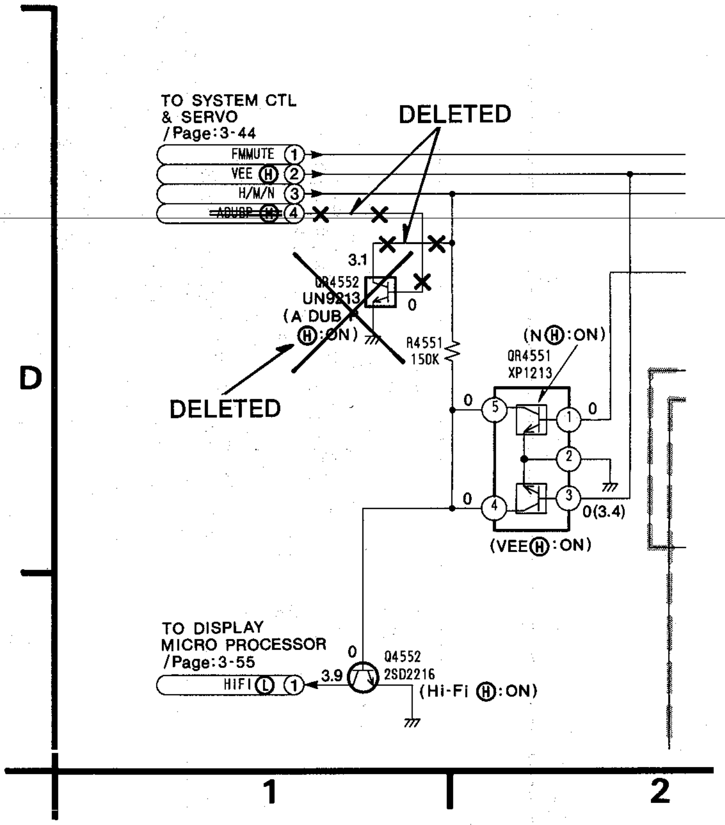
9. AUDIO SCHEMATIC DIAGRAM

NOTE: See NV-S85E/B/A, S850EN Service Manual (Order NO. VMD9308M124)
Page: 3-66


B
A
ADDED
(A D REC Ⓛ : ON)
L4003
47u
R4030
4700
C4022
6V22
024
C4023
0.022
Q4006
2SD602
(BIAS OSC)
0
(4.3)
0
(-0.6)
0
(0.2)
Q4005
2SB1219
4.8
R4060
22K
4.8
(3.9)
4.8
(3.9)
4028
2200
CL4005
R4027
22K
0 (3.5)
CL4006
Q4020
2SD2216
0 (2.9)
(A D REC Ⓗ : ON)
R4029
1K
C4021
50V1
DELETED
0.1
(4.5)
4.8
QR4007
UN9111
(D REC Ⓛ : ON)
4.8
(0)
QR4008
UN9213
0 (3.6)
(V D REC Ⓗ : ON)
DELETED
Q4010
2SD2216
(D REC : ON)
0
(4.5)
R4034
100
0 (4.4)
0
(3.7)
R4035
4700
NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR
ORDER A PART, PLEASE REFER TO PARTS LIST.
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAG
THE MEASUREMENT MODE OF THE DC VOLTA
3
4
5

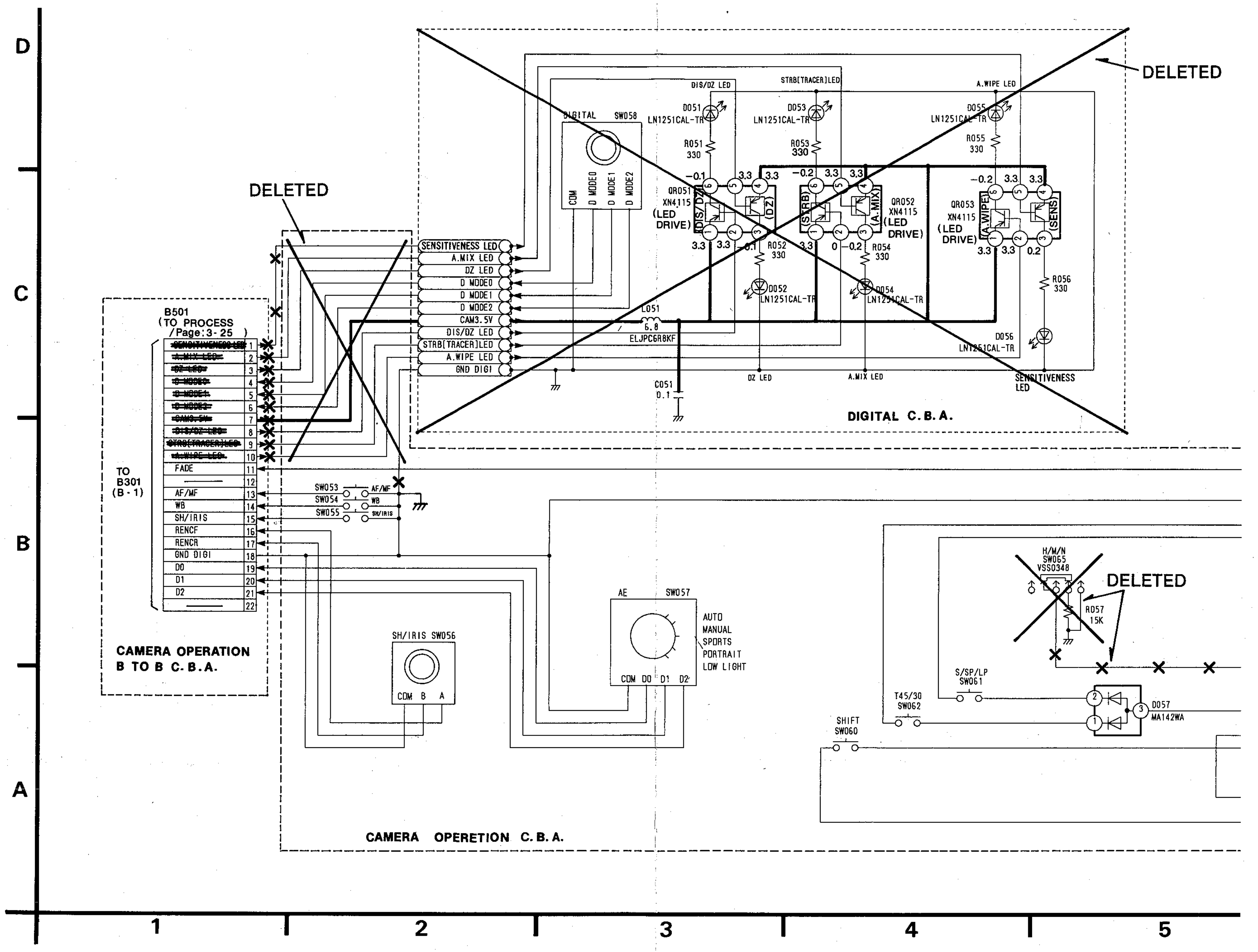
10. Hi-Fi AUDIO SCHEMATIC DIAGRAM

NOTE: See NV-S85E/B/A, S850EN Service Manual (Order NO. VMD9308M124)
Page: 3-69


D
TO SYSTEM CTL
& SERVO
/Page:3-44
FMMUTE ①
VEE Ⓗ ②
H/M/N ③
~~ADUBP Ⓗ~~ ④
DELETED
3.1
QR4552
UN9213
(A DUB Ⓗ : ON)
0
DELETED
R4551
150K
(N Ⓗ : ON)
QR4551
XP1213
0
0
0
0(3.4)
(VEE Ⓗ : ON)
TO DISPLAY
MICRO PROCESSOR
/Page:3-55
HIFI Ⓛ ①
3.9
0
Q4552
2SD2216
(Hi-Fi Ⓗ : ON)
1
2

11. CAMERA OPERATION PANEL UNIT SCHEMATIC DIAGRAM

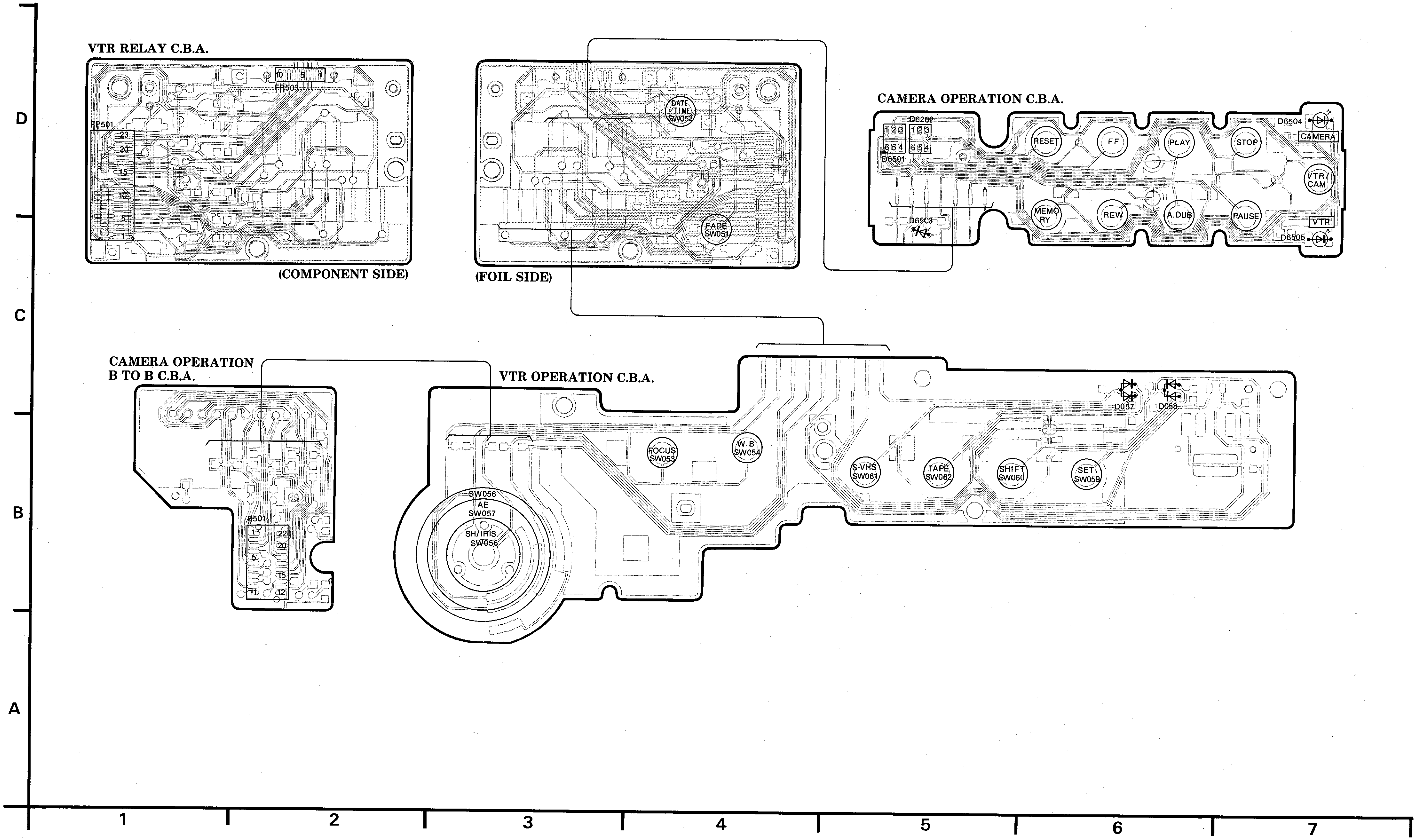
NOTE: See NV-S85E/B/A, S850EN Service
Manual (Order NO. VMD9308M124)
Page: 3-90



D
C
B
A
1
2
3
4
5
DELETED
DELETED
DELETED
B501
(TO PROCESS /Page:3-25)
~~SENSITIVENESS LED~~ 1
~~A.MIX LED~~ 2
~~DZ LED~~ 3
~~D MODE0~~ 4
~~D MODE1~~ 5
~~D MODE2~~ 6
~~CAM3.5V~~ 7
~~DIS/DZ LED~~ 8
~~STRB[TRACER]LED~~ 9
~~A.WIPE LED~~ 10
FADE 11
12
AF/MF 13
WB 14
SH/IRIS 15
RENCF 16
RENCR 17
GND DIGI 18
D0 19
D1 20
D2 21
22
TO B301 (B-1)
CAMERA OPERATION B TO B C.B.A.
SENSITIVENESS LED
A.MIX LED
DZ LED
D MODE0
D MODE1
D MODE2
CAM3.5V
DIS/DZ LED
STRB[TRACER]LED
A.WIPE LED
GND DIGI
DIGITAL SW058
COM
D MODE0
D MODE1
D MODE2
DIS/DZ LED
STRB[TRACER]LED
A.WIPE LED
D051 LN1251CAL-TR
D053 LN1251CAL-TR
D055 LN1251CAL-TR
R051 330
R053 330
R055 330
QR051 XN4115 (LED DRIVE)
QR052 XN4115 (LED DRIVE)
QR053 XN4115 (LED DRIVE)
(DIS/DZ)
(DZ)
(STRB)
(A.MIX)
(A.WIPE)
(SENS)
-0.1
3.3
-0.2
0
0.2
R052 330
R054 330
R056 330
D052 LN1251CAL-TR
D054 LN1251CAL-TR
D056 LN1251CAL-TR
L051 6.8 ELJPC6R8KF
C051 0.1
DZ LED
A.MIX LED
SENSITIVENESS LED
DIGITAL C.B.A.
SW053 AF/MF
SW054 WB
SW055 SH/IRIS
SH/IRIS SW056
COM B A
AE SW057
AUTO
MANUAL
SPORTS
PORTRAIT
LOW LIGHT
COM D0 D1 D2
H/M/N SW065 VSS0348
R057 15K
S/SP/LP SW061
T45/30 SW062
SHIFT SW060
D057 MA142WA
CAMERA OPERETION C.B.A.

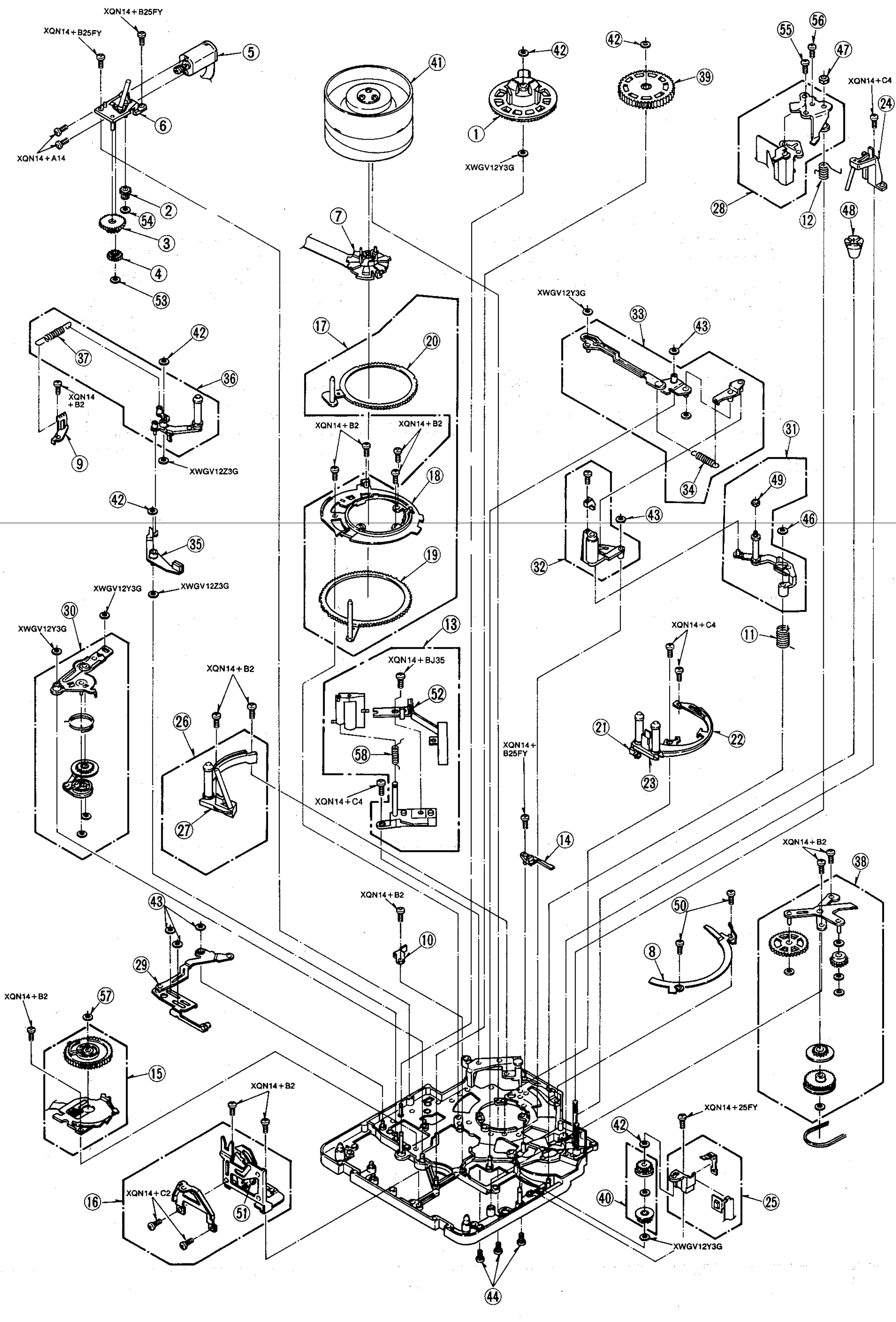
Back Page:
AUDIO & Hi-Fi AUDIO Section

12. CAMERA OPERATION PANEL UNIT (ESU39011)


VTR RELAY C.B.A.
(COMPONENT SIDE)
(FOIL SIDE)
FP501
FP503
10
5
1
23
20
15
DATE TIME SW052
FADE SW051
CAMERA OPERATION C.B.A.
D6202
D6501
D6503
D6504
D6505
1 2 3
6 5 4
RESET
FF
PLAY
STOP
CAMERA
VTR/CAM
MEMORY
REW
A.DUB
PAUSE
VTR
CAMERA OPERATION B TO B C.B.A.
B501
22
12
11
VTR OPERATION C.B.A.
FOCUS SW053
W.B SW054
S-VHS SW061
TAPE SW062
SHIFT SW060
SET SW059
SW056
AE
SW057
SH/IRIS
D057
D058
A
B
C
D
1
2
3
4
5
6
7

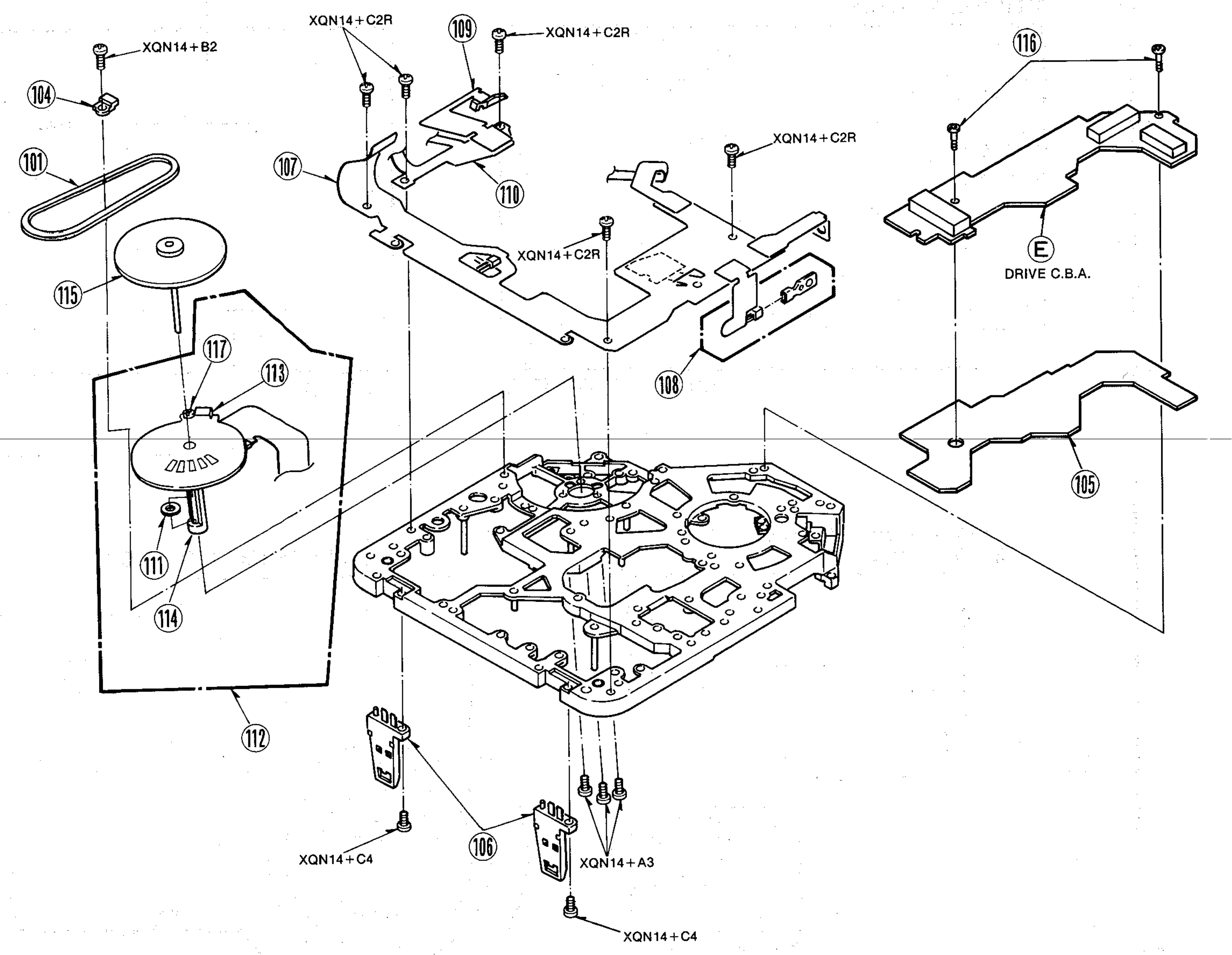
13. EXPLODED VIEWS

❶ VTR MECHANISM SECTION (1)



XQN14+B25FY
XQN14+B25FY
5
6
XQN14+A14
2
54
3
4
53
41
7
42
1
XWGV12Y3G
42
39
55
56
47
XQN14+C4
24
28
12
48
37
42
36
XQN14+B2
9
XWGV12Z3G
42
35
XWGV12Y3G
XWGV12Z3G
30
XWGV12Y3G
17
20
XQN14+B2
XQN14+B2
18
19
13
XQN14+BJ35
52
58
XQN14+C4
XWGV12Y3G
33
43
34
31
49
46
32
43
11
XQN14+C4
21
22
23
26
XQN14+B2
27
XQN14+B25FY
14
XQN14+B2
38
XQN14+B2
10
50
8
43
29
XQN14+B2
57
15
XQN14+B2
XQN14+25FY
42
40
25
16
XQN14+C2
51
XWGV12Y3G
44

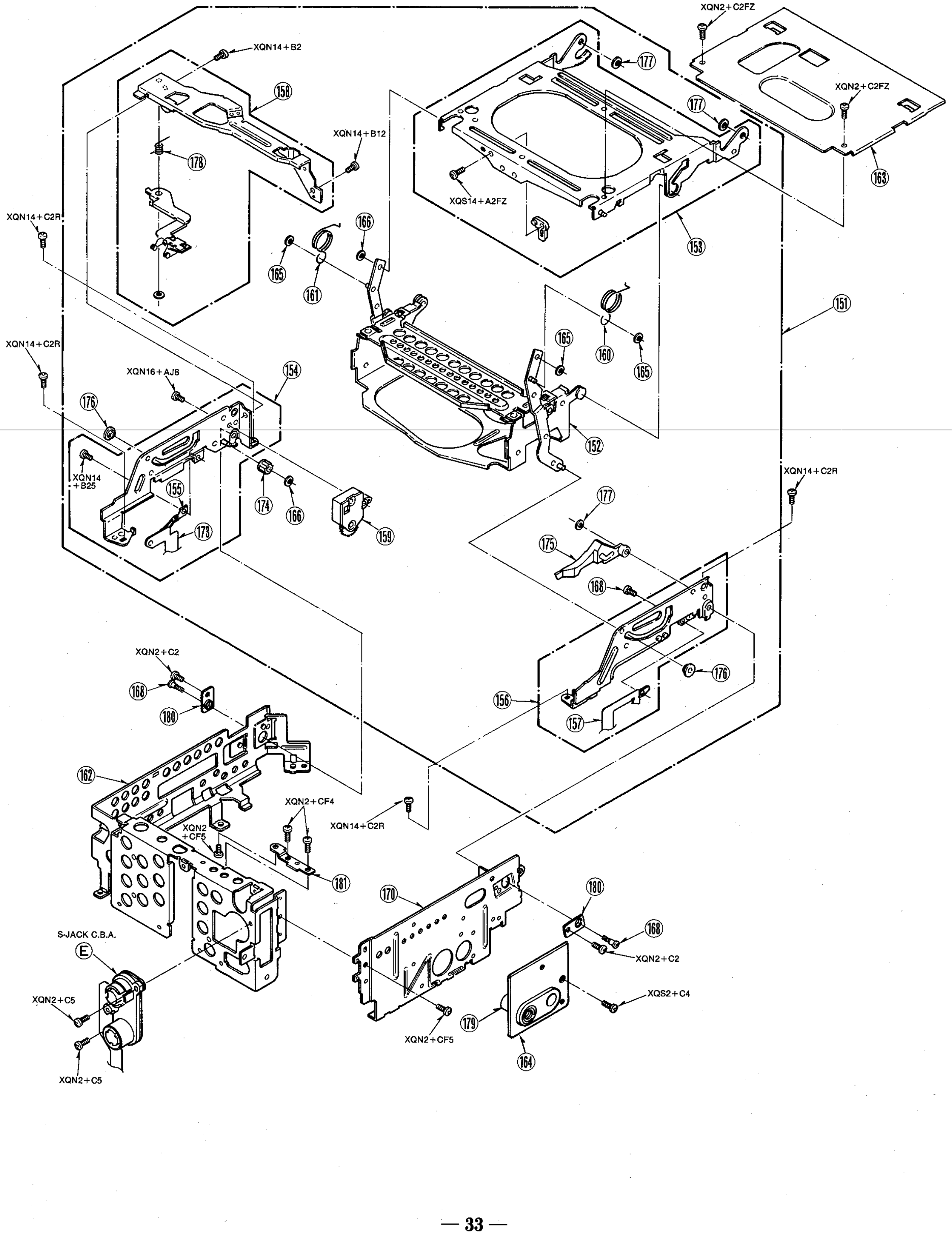
❷ VTR MECHANISM SECTION (2)



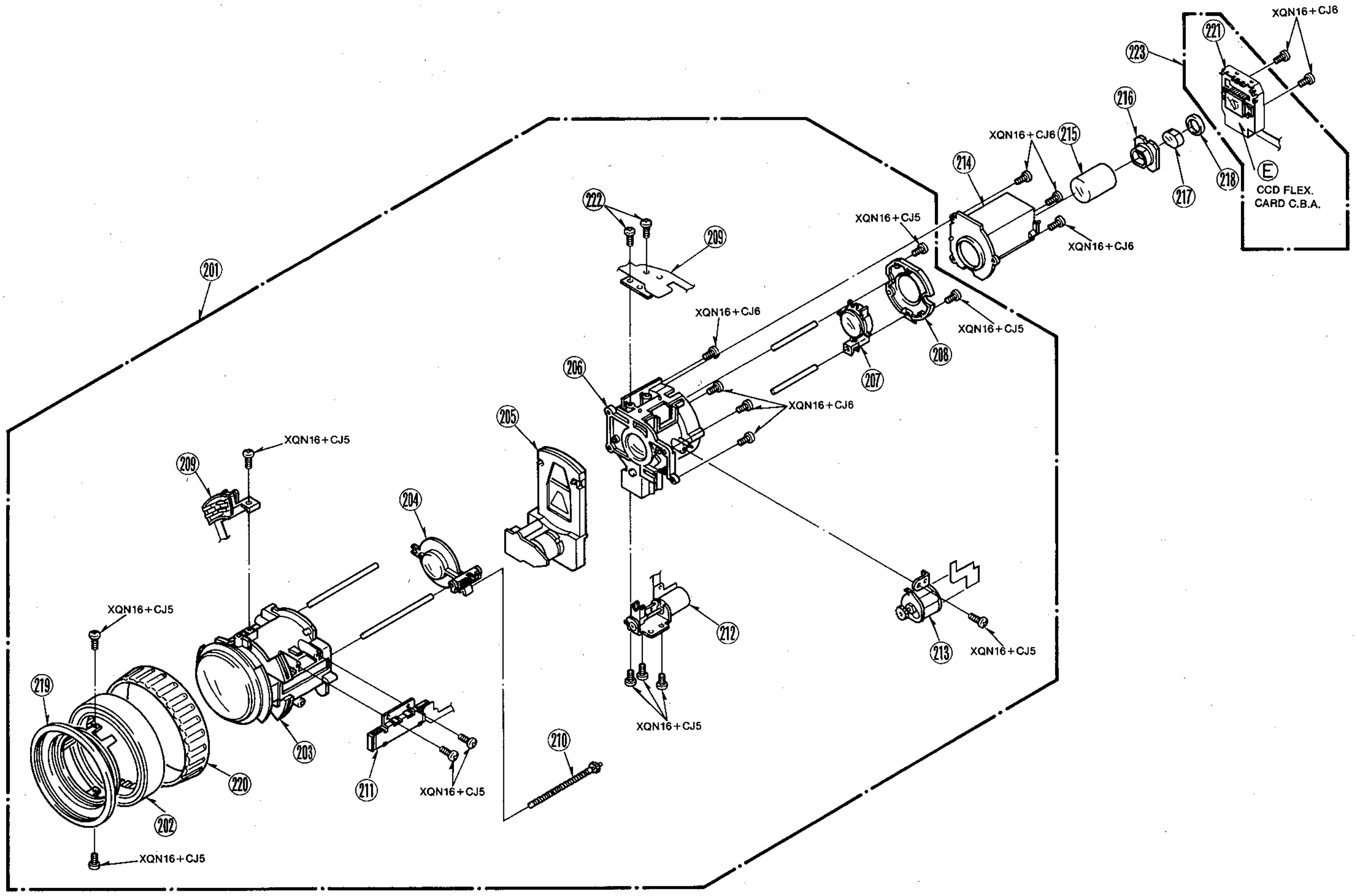
XQN14+B2
104
101
115
117
113
111
114
112
XQN14+C2R
109
XQN14+C2R
107
110
XQN14+C2R
XQN14+C2R
108
116
E
DRIVE C.B.A.
105
106
XQN14+C4
XQN14+A3
XQN14+C4

Back Page:
CAMERA OPERATION Section

❸ VTR MECHANISM SECTION (3)

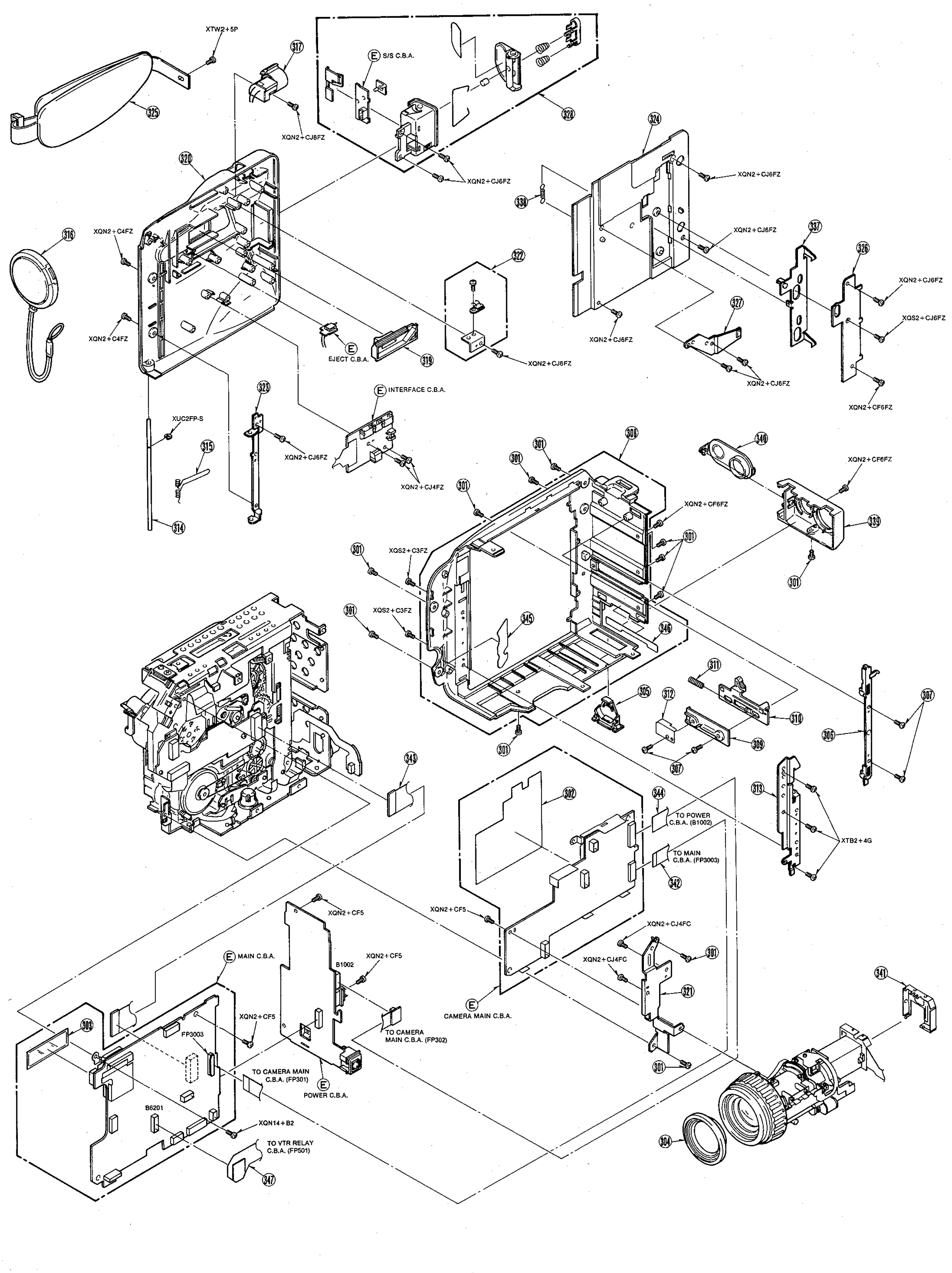

XQN2+C2FZ
XQN14+B2
158
177
177
XQN2+C2FZ
XQN14+B12
178
XQS14+A2FZ
163
153
XQN14+C2R
166
165
161
151
165
160
165
XQN14+C2R
XQN16+AJ8
154
176
152
XQN14
+B25
155
174
166
159
173
XQN14+C2R
177
175
168
XQN2+C2
168
180
176
156
157
162
XQN2+CF4
XQN14+C2R
XQN2
+CF5
181
170
180
168
S-JACK C.B.A.
E
XQN2+C2
XQS2+C4
XQN2+C5
179
XQN2+CF5
164
XQN2+C5

❹ CAMERA LENS SECTION



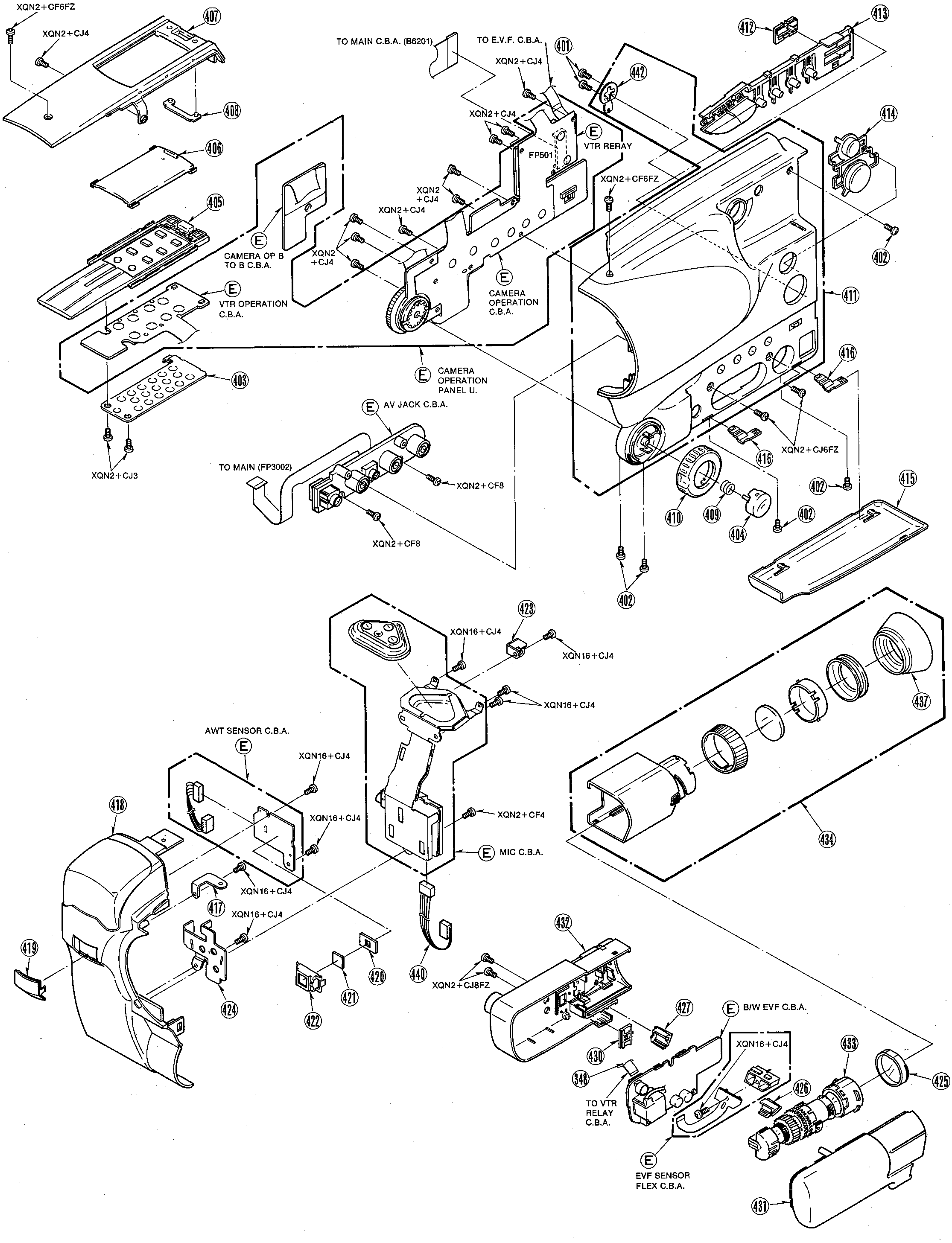
XQN16+CJ6
221
223
216
XQN16+CJ6
215
214
E
CCD FLEX.
CARD C.B.A.
218
217
XQN16+CJ6
222
209
XQN16+CJ5
201
XQN16+CJ6
XQN16+CJ5
208
207
206
XQN16+CJ6
205
XQN16+CJ5
209
204
XQN16+CJ5
219
212
213
XQN16+CJ5
XQN16+CJ5
203
220
202
211
XQN16+CJ5
210
XQN16+CJ5

❺ FRAME & CASING PARTS SECTION (1)



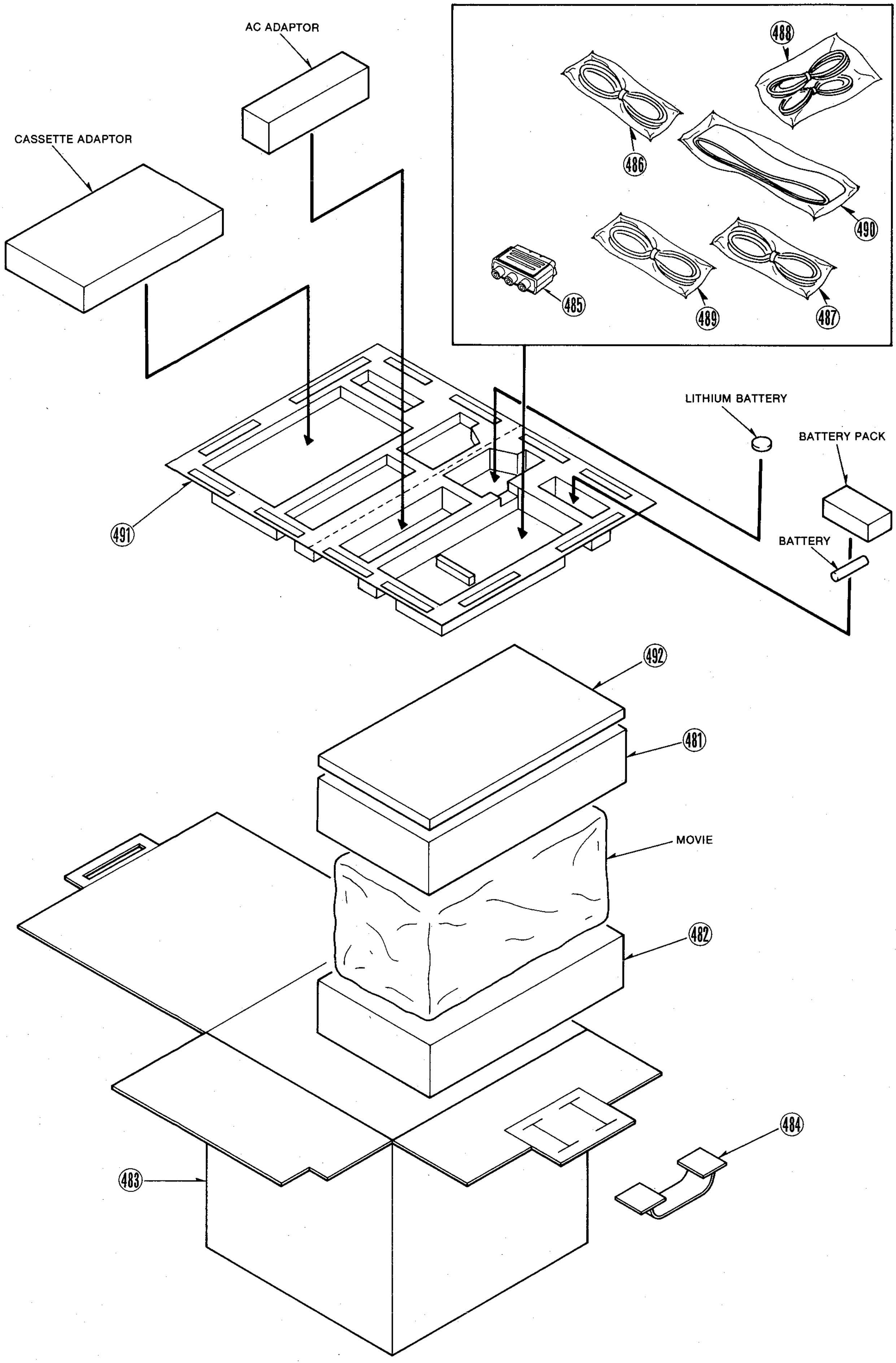
XTW2+5P
317
E S/S C.B.A.
325
XQN2+CJ6FZ
328
XQN2+CJ6FZ
324
XQN2+CJ6FZ
320
338
316
XQN2+C4FZ
XQN2+CJ6FZ
337
322
326
XQN2+CJ6FZ
XQS2+CJ6FZ
327
XQN2+C4FZ
XQN2+CJ6FZ
E
EJECT C.B.A.
319
XQN2+CJ6FZ
XQN2+CJ6FZ
XQN2+CF6FZ
323
E INTERFACE C.B.A.
XUC2FP-S
315
XQN2+CJ6FZ
XQN2+CJ4FZ
314
301
301
308
340
301
XQN2+CF6FZ
301
XQN2+CF6FZ
339
301
XQS2+C3FZ
301
301
301
XQS2+C3FZ
345
346
311
305
312
310
307
306
301
309
307
343
302
344
TO POWER
C.B.A. (B1002)
313
TO MAIN
C.B.A. (FP3003)
XTB2+4G
342
XQN2+CF5
XQN2+CF5
XQN2+CJ4FC
301
E MAIN C.B.A.
B1002
XQN2+CF5
XQN2+CJ4FC
341
321
E
CAMERA MAIN C.B.A.
303
XQN2+CF5
FP3003
TO CAMERA
MAIN C.B.A. (FP302)
301
TO CAMERA MAIN
C.B.A. (FP301)
E
POWER C.B.A.
B6201
XQN14+B2
304
TO VTR RELAY
C.B.A. (FP501)
347

❻ FRAME & CASING PARTS SECTION (2)



XQN2+CF6FZ
XQN2+CJ4
407
408
406
405
E
CAMERA OP B
TO B C.B.A.
E
VTR OPERATION
C.B.A.
403
XQN2+CJ3
TO MAIN C.B.A. (B6201)
TO E.V.F. C.B.A.
401
442
XQN2+CJ4
XQN2+CJ4
E
VTR RERAY
FP501
XQN2
+CJ4
XQN2+CJ4
XQN2
+CJ4
E
CAMERA
OPERATION
C.B.A.
E
CAMERA
OPERATION
PANEL U.
E
AV JACK C.B.A.
TO MAIN (FP3002)
XQN2+CF8
XQN2+CF8
XQN2+CF6FZ
412
413
414
402
411
416
416
XQN2+CJ6FZ
402
415
402
410
409
404
402
423
XQN16+CJ4
XQN16+CJ4
XQN16+CJ4
437
AWT SENSOR C.B.A.
E
XQN16+CJ4
XQN16+CJ4
XQN2+CF4
E
MIC C.B.A.
434
418
XQN16+CJ4
417
XQN16+CJ4
419
424
420
421
422
440
432
XQN2+CJ8FZ
427
E
B/W EVF C.B.A.
XQN16+CJ4
433
430
348
425
TO VTR
RELAY
C.B.A.
426
E
EVF SENSOR
FLEX C.B.A.
431

❼ PACKING PARTS & ACCESSORIES SECTION


AC ADAPTOR
CASSETTE ADAPTOR
488
486
490
485
489
487
LITHIUM BATTERY
BATTERY PACK
BATTERY
491
492
481
MOVIE
482
484
483

14. MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VDR0226	REEL BASE (S)	1	
2(1)		VDG0821	BRAKE GEAR (A)	1	
3(1)		VDG0822	BRAKE GEAR (B)	1	
4(1)		VDG0823	BRAKE GEAR (C)	1	
5(1)		VEM0417	LOADING MOTOR (1) U.	1	
6(1)		VXA4527	MOTOR HOLDER U.	1	
7(1)		VEP03876A	RT CONNECTOR U.	1	
8(1)		VMA8502	T-RING SLIDER	1	
9(1)		VMA8505	TEN-REG.SPRING HOOK	1	
10(1)		VMA8532	PENDULUM ARM HOLDER	1	
11(1)		VMB2362	T3 ARM SPRING	1	
12(1)		VMB2365	AC HEAD SPRING	1	
13(1)		VXA5108	S-GUIDE STAND U.	1	
14(1)		VMD1851	T-BOAT GUIDE	1	
15(1)		VSR0096	MODE SWITCH U.	1	
16(1)		VXA4515	LOCK BASE U.	1	
17(1)		VXA4517	LOADING RING U.	1	
18(1)		VMD1824	RING GUIDE	1	
19(1)		VXA4518	T-RING U.	1	
20(1)		VXA4519	S-RING U.	1	
21(1)		VEK5549	LED U.	1	
22(1)		VMD1828	T-RAIL	1	
23(1)		VXA4776	T-BOAT U.	1	
24(1)		VXA4528	T4 POST U.	1	
25(1)		VXA4997	T-REEL SENSOR U.	1	
26(1)		VXA5153	S-RAIL B U.	1	
27(1)		VXA5124	S-BOAT B U.	1	
28(1)		VXA5033	AC HEAD U.	1	
29(1)		VXL2130	EJECT LEVER U.	1	
30(1)		VXL2133	SWING ARM U.	1	
31(1)		VXL2135	T3 ARM U.	1	
32(1)		VXL2139	PINCH ARM U.	1	
33(1)		VXL2140	PINCH DRIVE ARM U.	1	
34(1)		VMB2363	PINCH PRESSURE SPRING	1	
35(1)		VXL2144	PAD ARM U.	1	
36(1)		VXL2145	TEN-REG. ARM U.	1	
37(1)		VMB2364	TEN-REG. SPRING	1	
38(1)		VXL2147	IDLER U.	1	
39(1)		VXP1308	RELAY GEAR U.	1	
40(1)		VXP1313	T-DRIVE GEAR U.	1	
41(1)		VEG1096	CYLINDER U.	1	
42(1)		VMX2027	WASHER	5	
43(1)		VMX2026	WASHER	5	
44(1)		VHD0682	SCREW	3	
46(1)		VMX2026	WASHER	1	
47(1)		VHN0047	NUT	1	
48(1)		VHN0175	ADJUST NUT	1	
49(1)		VHN0172	T3 POST NUT	1	
50(1)		VHD0711	SCREW	3	
51(1)		VMB2369	LOCK SPRING	1	
52(1)		VXS0120	EARTH BRUSH U.	1	
53(1)		VMX2027	WASHER	1	
54(1)		VMX2051	WASHER	1	
55(1)		VHD0700	SCREW	1	
56(1)		VHD0699	SCREW	1	
57(1)		VMX2026	WASHER	1	
58(1)		VMB2661	S-GUIDE SPRING	1	
101(2)		VDV0232	CAPSTAN BELT	1	
104(2)		VMD1846	CAPSTAN STOPPER	1	
105(2)		VMZ1871	BARRIER	1	
106(2)		VSH0055	REC SAFETY SW U.	2	
107(2)		VWJ0719	MECH.FLEXIBLE CARD	1	
108(2)		VXA4511	PHOTO (L) U.	1	
109(2)		VXA4514	PHOTO (R) U.	1	
110(2)		VXA4997	T-REEL SENSOR U.	1	
111(2)		VDB1129	LOWER BEARING	1	
112(2)		VEK5516	STATOR U.	1	
113(2)		VBK0059	MR HEAD	1	
114(2)		VXD0134	HOUSING U.	1	
115(2)		VXP1303	ROTOR U.	1	
116(2)		VHD0681	SCREW	2	
117(2)		VHD0593	SCREW	1	
151(3)		VXA4861	GARAGE U.	1	
152(3)		VXA4506	HOLDER U.	1	
153(3)		VXA4863	GARAGE (1) U.	1	
154(3)		VXA4510	STAND (L) U.	1	
155(3)		VXA4511	PHOTO (L) U.	1	
156(3)		VXA4513	STAND (R) U.	1	
157(3)		VXA4514	PHOTO (R) U.	1	
158(3)		VXL2222	TAPE GUIDE U.	1	
159(3)		VXP1315	DUMPER	1	
160(3)		VMB2367	UP SPRING (R)	1	
161(3)		VMB2368	UP SPRING (L)	1	
162(3)		VMP4104	MAIN FRAME	1	
163(3)		VMZ2231	INNER COVER	1	
164(3)		VMD1873	TRIPOD FRAME	1	
165(3)		VMX1042	WASHER	3	
166(3)		VMX1061	WASHER	2	
168(3)		VHD0713	SCREW	3	
170(3)		VMP4103	BOTTOM FRAME	1	
173(3)		VWJ0548	PHOTO FLEX.CARD	1	
174(3)		VDG0827	DUMPER RELAY GEAR	1	
175(3)		VML2580	TAPE OPEN LEVER	1	
176(3)		VDP1406	ARM HOLDER	2	
177(3)		VMX1042	WASHER	4	
178(3)		VMB2498	TAPE GUIDE SPRING	1	
179(3)		VGQ3032	ALUMINIUM SHEET	1	
180(3)		VGQ3137	INSULATION PIECE (A)	2	
181(3)		VGQ3295	INSULATION PIECE (B)	1	
201(4)		VXW0120	LENS U.	1	
202(4)		VDW0208	FOCUS RING	1	
203(4)		VXQ0347	LENS MAIN U.	1	
204(4)		VXP1390	2ND MOVING FRAME U.	1	
205(4)		VXL2267	IRIS U.	1	
206(4)		VXQ0348	MASTER FLANGE	1	
207(4)		VXP1391	4TH MOVING FRAME U.	1	
208(4)		VMD2053	POLE GUIDE	1	
209(4)		VEK6157	LENS FLEX. U.	1	
210(4)		VXP1393	SCREW SHAFT U.	1	
211(4)		EVAJHJJ01B14	ZOOM ENCODER	1	
212(4)		VEM0436	FOCUS MOTOR U.	1	
213(4)		VEM0437	ZOOM MOTOR U.	1	
214(4)		VDW0210	MASTER FLANGE	1	
215(4)		VDL0341	GLASS	1	
216(4)		VDS0030	CRYSTAL FILTER HOLDER	1	
217(4)		VDL0322	CRYSTAL FILTER	1	
218(4)		VMX1846	CCD CUSHION	1	
219(4)		VDW0209	FOCUS RING BASE	1	
220(4)		VDW0212	FOCUS RING RUBBER	1	
221(4)		VSC3920	CCD SHIELD CASE	1	
222(4)		VHD0666	SCREW	2	
223(4)		VEK6611	CCD UNIT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
301(5)		VHD0729	SCREW	1	
304(5)		VDW0202	LENS HOOD	1	
305(5)		VKF1707	BATTERY COVER	1	
306(5)		VYK4655	CASSETTE LOCK ANGLE U.	1	
307(5)		VHD0794	SCREW	4	
308(5)		VYK5392	SIDE CASE (L)(1) U.	1	
309(5)		VGQ3139	BATT. LOCK HOLD PLATE	1	
310(5)		VGQ3352	BATT. LOCK LEVER	1	
311(5)		VMB2483	BATT. LOCK SPRING	1	
312(5)		VMZ2215	BATT. BLIND BARRIER	1	
313(5)		VMP3909	HINGE(A)	1	
314(5)		VMS4762	SHAFT	1	
315(5)		VMB2669	SPRING	1	
316(5)		VYF1987	HOOD CAP U.	1	
317(5)		VEK6533	ZOOM OPERATION U.	1	
319(5)		VGU6428	LOCK RELEACE (EJECT) KNOB	1	
320(5)		VYP5391	CASSETTE COVER (1) UNIT	1	
321(5)		VMP4106	CAMERA FRAME	1	
322(5)		VEK6587	DEW SENSOR U.	1	
323(5)		VMP3910	HINGE(B)	1	
324(5)		VGQ3281	CASSETTE HOLDER	1	
325(5)		VYC0578	GRIP BELT U.	1	
326(5)		VMP4167	CASSETTE LOCK ANGLE HOLDER	1	
327(5)		VMC0831	CASSETTE DOWN SPRING	1	
328(5)		VXU1182	S/S BUTTON UNIT	1	
337(5)		VYK4656	CASSETTE LOCK ANGLE (B)U.	1	
338(5)		VMB2384	CASSETTE LOCK SPRING	1	
339(5)		VKM3639	S-JACK PIECE	1	
340(5)		VKF2080	S-JACK COVER	1	
341(5)		VSC3919	CCD SHIELD CASE (UPPER)	1	
342(5)		VJB00T79	CAM-MAIN FLEX. CARD	1	
343(5)		VWJ0738	DRIVE-MAIN FLEX. CARD	1	
344(5)		VEP00T88A	CAM-POWER FLEX.CARD	1	
345(5)		VGQ3315	HOOKING BLINDER SHEET	1	
346(5)		VMZ2220	BATT. BLINDER BARRIER (B)	1	
347(5)		VJB00T81	MAIN-VTR RELAY FLEX.CARD	1	
348(5)		VJB00T92	EVF-VTR FLEX CARD	1	
401(6)		VHD0768	SCREW	2	
402(6)		VHD0729	SCREW	1	
403(6)		VMP4169	VTR OPERATION HOLD PLATE	1	
404(6)		VGU6450	MODE BUTTON	1	
405(6)		VYK5298	VTR OPETRATION PANEL U.	1	
406(6)		VGQ3334	CURSOR	1	
407(6)		VKM3636	TOP CASE	1	
408(6)		VGL0575	PANEL LIGHT	1	
409(6)		VMB2531	MODE KNOB SPRING	1	
410(6)		VGU6460	MODE SELECT LEVER	1	
411(6)		VYK5386	SIDE CASE (R)(1)U.	1	
413(6)		VGU6448	CAMERA OPERATION BUTTON	1	
414(6)		VGU6449	FADE/DATE BUTTON	1	
415(6)		VKF2107	AV JACK DOOR	1	
416(6)		VKC0420	AV JACK HINGE	2	
417(6)		VMP4221	FRONT FIXING ANGLE (C)	1	
418(6)		VYK5390	FRONT CASE (1)U.	1	
419(6)		VKW1804	AWT SENSOR WINDOW	1	
420(6)		VGQ3306	IR PLATE SPACER	1	
421(6)		VDL0397	IR CUT FILTER	1	
422(6)		VGQ3310	IR PLATE HOLDER	1	
423(6)		VMP4171	FRONT FIXING ANGLE (B)	1	
424(6)		VMP4107	FRONT FIXING ANGLE (A)	1	
425(6)		VKW1806	PROTECTION PANEL	1	
426(6)		VKW1813	SENSOR WINDOW (R)	1	
427(6)		VKW1805	SENSOR WINDOW (L)	1	
430(6)		VGU6413	APS KNOB	1	
431(6)		VKM3638	EVF CASE (R)	1	
432(6)		VYK5393	EVF CASE (L)U.	1	
433(6)		M01KUA07WB01	ITC	1	
434(6)		VYQ0945	SLIDE CASE U.	1	
437(6)		VMG0793	EYE CAP	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
440(6)		VEE8637	MIC CONNECTOR CABLE	1	
442(6)		VMC0961	ROTATION LOCK SPRING	1	
481(7)		VPN3741	CUSHION (UPPER)	1	
482(7)		VPN3742	CUSHION (LOWER)	1	
483(7)		VPG7174	PACKING CASE	1	
484(7)		VPN2329	HANDLE	1	
485(7)		VFA0151	21 PIN ADAPTOR	1	
486(7)		VJA0664	AC CABLE	1	<!>
487(7)		VJA0769	DC INPUT CABLE	1	
488(7)		VFA0028	AV OUTPUT CABLE	1	
489(7)		VJA0658	4PIN S-VHS CABLE	1	
490(7)		VFC1528	SHOLDER STRAP	1	
491(7)		VPN3619	ACCESSORY BOX	1	
492(7)		VQT5432	OPERATING INSTRUCTIONS	1	<!>
			(ENGLISH/GERMAN/FRENCH		
			/SPANISH)		
			**** JIG & TOOLS *****		
			------ ELECTRICAL -------		
		VFM8180HUPF	VHS-C ALIGMENT TAPE	1	PAL
		VFK0374	COLOUR TEMP.CONV.FILRTER	1	(C12) OR VFK0713
		VFK0375	COLOUR TEMP.CONV.FILRTER	1	(C2) OR VFK0716
		VFK0644	EVR FIXTURE	1	
		VFK0701ROM21	ROM	1	FOR EVR FIXTURE
		VFK0766A	EVR CONNECTION CABLE 5P	1	FOR EVR FIXTURE
		VFK0734W	MEASUREMENT CABLE 24P	1	FOR EVR FIXTURE
		VFK0670	FLAT CABLE 18P	1	
		VFK0710	FLAT CABLE 23P	1	
		VFK0723	EXTENSION CABLE 22P	1	
		VFK0727	FLAT CABLE 16P	1	
		VFK0728	FLAT CABLE 9P	1	
		VFK0729	FLAT CABLE 6P	1	
		VFK0841	EXTENSION CABLE 28P	1	
		VFK0896	FLAT CABLE 23P	1	
		VFK0913	FLAT CABLE 18P	1	
		VFK0933	FLAT CABLE 10P	1	
			---- MECHANICAL ------		
		VFK0743	H-POSITION ADJUSTMENT	1	
		VFK0824	ASTERISK TYPE RENCH	1	
		VFK0335	RETAINING RING REMOVER	1	
		VFK0329	POST ADJ. SCREW DRIVER	1	
		VFK0326	HEX WRENCH SET	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLTONE GREASE	1	

15. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE : Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS , K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP23169B	CAMERA MAIN C.B.A.	1	(RTL)
		ESU39011	CAMERA OPERATION UNIT	1	(RTL)
		VEP03A55B	VTR MAIN C.B.A.	1	(RTL)
	■	VEP23169B	CAMERA MAIN C.B.A.		(RTL)
B202		VJP2962A012	CONNECTOR (MALE) 12P	1	
B301		VJP3240C022	CONNECTOR (MALE) 22P	1	
B302		VJP2962A024	CONNECTOR (MALE) 24P	1	
C202,03		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C204		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C209		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C211		ECST1GX155Z	T.CAPACITOR 1.5U	1	
C213,14		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C216,17		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C222		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C223		ECRJA020E11	V.CAPACITOR	1	
C224		ECST1AX106Z	T.CAPACITOR 10V 10U	1	
C227		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C228		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C229,30		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C231		ECST0GY106Z	T.CAPACITOR 4V 10U	1	
C232		ECST0GX226Z	T.CAPACITOR 4V 22U	1	
C233		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C234		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C235		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C236		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C237-39		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C241		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C242		ECUM1H473ZFV	C.CAPACITOR CH 50V 0.047U	1	
C243		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C245		ECST1DX475Z	T.CAPACITOR 4.7U	1	
C246		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C248		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C249		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C250		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C252		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C254		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C256,57		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	2	
C259		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C262		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C263,64		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C266		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C268,69		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C270		ECUX1H050CCV	C.CAPACITOR CH 50V 5P	1	
C271		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C272		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C273		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C274		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C275		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C276-78		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C301		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C302		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C304		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C305		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C306		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C307		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C308		ECUM1C474ZFN	C.CAPACITOR CH 16V 0.47U	1	
C309		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C310		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C314-16		ECST0JY106Z	T.CAPACITOR 6.3V 10U	3	
C317,18		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C319		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C320		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C321-23		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C325,26		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C327		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C333		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C334		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C335,36		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C337-40		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	4	
C341		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C342		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C344		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C345		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C348		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C349		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C350		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C351		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C352		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C353		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C354-56		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C357		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C358,59		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C361		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C370		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C371		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C701		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C703,04		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C709		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C713		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C718		ECEV1CA470P	E.CAPACITOR 16V 47U	1	
C719		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C721		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C724,25		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C726		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C727,28		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C729		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C731		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C732		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C740,41		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C742		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
D201		MA110	DIODE	1	
D203		MA110	DIODE	1	
D207-09		MA110	DIODE	3	
D301		MA110	DIODE	1	
D302-04		MA728	DIODE	3	
D701,02		1SS319	DIODE	2	
FL201		VLF1058	FILTER	1	
FP301		VJS3319D018	CONNECTOR (FEMALE) 18P	1	
FP304		VJS2959B018	CONNECTOR (FEMALE) 18P	1	
FP701		VJS2958B024	CONNECTOR (FEMALE) 24P	1	
IC201		VEFH38A	IC	1	
IC202		TC7SU04F	IC	1	
IC203		AN2018S	IC	1	
IC204		AN2034FAP	IC	1	
IC301		MN6576H	IC	1	
IC302		MN67321	IC	1	
IC305		MN65702H	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC308		MN1864002V8P	IC	1	
IC309		MN73512XWAS	IC	1	
IC310		M62352GP	IC	1	
IC311		X25040S-3C70	IC	1	
IC313		M62352GP	IC	1	
IC314		TC9074F	IC	1	
IC701		TC4S584F	IC	1	
IC702		LB1830M	IC	1	
IC703		TB6512F	IC	1	
IC705		LM358DB	IC	1	
IC706,07		LM324DB	IC	2	
L203-05		ELJFC150JB	COIL 15UH	3	
L206		ELJPC6R8KB	COIL 6.8UH	1	
L207		VLQ0426J680	COIL 68UH	1	
L208		VLQ0426J330	COIL 33UH	1	
L209		VLP0154	COIL	1	
L210		VLQ0426J390	COIL 39UH	1	
L211,12		VLP0154	COIL	2	
L213		ELJFC150JB	COIL 15UH	1	
L214		VLP0145	COIL	1	
L220		VLQ0426J3R3	COIL 3.3UH	1	
L224		VLP0145	COIL	1	
L303,04		ELJPC6R8KB	COIL 6.8UH	2	
L305		VLP0146	COIL	1	
L306,07		ELJPC6R8KB	COIL 6.8UH	2	
L308		VLP0140	COIL	1	
L309		ELJPC6R8KB	COIL 6.8UH	1	
L314		ELJFC150JB	COIL 15UH	1	
L315		ELJFC220JB	COIL 22UH	1	
L316		VLQ0426J390	COIL 39UH	1	
L317		ELJPC6R8KB	COIL 6.8UH	1	
L321		VLP0140	COIL	1	
L323-26		ELJPC6R8KB	COIL 6.8UH	4	
L329		VLP0140	COIL	1	
L330		VLP0145	COIL	1	
L332		VLP0146	COIL	1	
L701		ELJPC6R8KB	COIL 6.8UH	1	
L703-05		ELJPC6R8KB	COIL 6.8UH	3	
L706		ELJFC150JB	COIL 15UH	1	
L707		VLQ0319F150	COIL 15UH	1	
P302		VJP3125D005	CONNECTOR (MALE) 5P	1	
Q201		2SD2216	TRANSISTOR	1	
Q202		XP4654	TRANSISTOR-TRANSISTOR	1	
Q207,08		XP4654	TRANSISTOR-TRANSISTOR	2	
Q210		2SB1462	TRANSISTOR	1	
Q301		2SC3931	TRANSISTOR	1	
Q302		XP4501	TRANSISTOR-RESISTOR	1	
Q303		XP1501	TRANSISTOR-RESISTOR	1	
Q704,05		2SD2216	TRANSISTOR	2	
QR301		UN9211	IC	1	
QR701,02		UN9211	IC	2	
R201		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R203		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R204		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R205		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R211		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R218		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R219		ERJ2GEJ330	M.RESISTOR CH 2W 33	1	
R220		ERJ2GEJ221	M.RESISTOR CH 2W 220	1	
R221		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R224		ERJ2GEJ330	M.RESISTOR CH 2W 33	1	
R225		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R227		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R228		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R229		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R230		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R231		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R236		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R237		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R238		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R239		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R243		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R246		ERJ2GEJ823	M.RESISTOR CH 2W 82K	1	
R247		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R248		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R250		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R251		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R252		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R253		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R254-56		ERJ2GEJ102	M.RESISTOR CH 2W 1K	3	
R257		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R258		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R259		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R260		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R261		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R262		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R263		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R264		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R270		ERJ2GEJ154	M.RESISTOR CH 2W 150K	1	
R272		ERJ2GEJ393	M.RESISTOR CH 2W 39K	1	
R277		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R279,80		ERJ2GE0R00	M.RESISTOR CH 2W 0	2	
R281,82		ERJ2GEJ101	M.RESISTOR CH 2W 1K	2	
R283-89		ERJ2GEJ330	M.RESISTOR CH 2W 33	7	
R291		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R292		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R293		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R294		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R295		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R301		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R302,03		ERJ2GEJ223	M.RESISTOR CH 2W 22K	2	
R304		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R309		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R310		ERJ2GEJ273	M.RESISTOR CH 2W 27K	1	
R311		ERJ2GEJ123	M.RESISTOR CH 2W 12K	1	
R312,13		ERJ2GEJ223	M.RESISTOR CH 2W 22K	2	
R314		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R315		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R316		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R317		ERJ2GEJ563	M.RESISTOR CH 2W 56K	1	
R318		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R320		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R322,23		ERJ2GEJ105	M.RESISTOR CH 2W 1M	2	
R324,25		ERJ2GEJ473	M.RESISTOR CH 2W 47K	2	
R326		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R327		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R328		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R330-33		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	4	
R334		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R336-40		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	5	
R341		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R344		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R345		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R351		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R352,53		ERJ2GEJ473	M.RESISTOR CH 2W 47K	2	
R358		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R362		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R364		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R369		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R371		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R372,73		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R374		ERJ2GEJ122	M.RESISTOR CH 2W 1.2K	1	
R375		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R376		ERJ2GEJ122	M.RESISTOR CH 2W 1.2K	1	
R378		ERJ2GEJ562	M.RESISTOR CH 2W 5.6K	1	
R380		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R381		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R382		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R383		ERJ2GEJ393	M.RESISTOR CH 2W 39K	1	
R384		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R385		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R388		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R389		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R390		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R391		ERJ2GEJ682	M.RESISTOR CH 2W 6.8K	1	
R392		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R394		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R701		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R702		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R703		ERJ2GEJ823	M.RESISTOR CH 2W 82K	1	
R706,07		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	2	
R708		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R711		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R712		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R714		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R716		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R717		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R718		ERJ2GEJ225	M.RESISTOR CH 2W 2.2M	1	
R719		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R721		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R722		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R723		ERJ2GEJ154	M.RESISTOR CH 2W 150K	1	
R724		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R725		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R726		ERJ3GEYG122	M.RESISTOR CH 1/16W 1.2K	1	
R727		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R728		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R729		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R730		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	1	
R731		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R732		ERJ2GEJ563	M.RESISTOR CH 2W 56K	1	
R733		ERJ2GEJ224	M.RESISTOR CH 2W 220K	1	
R734,35		ERJ2GEJ123	M.RESISTOR CH 2W 12K	2	
R736		ERJ2GEJ474	M.RESISTOR CH 2W 470K	1	
R737		ERJ2GEJ394	M.RESISTOR CH 2W 390K	1	
R739		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R740,41		ERJ2GEJ473	M.RESISTOR CH 2W 47K	2	
R742		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R743		ERJ2GEJ682	M.RESISTOR CH 2W 6.8K	1	
R744		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R745		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R746		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R747		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	1	
R748		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R749		ERJ3GEYG103	M.RESISTOR CH 1/16W 10K	1	
R750		ERJ3GEYG303	M.RESISTOR CH 1/16W 30K	1	
R751		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R752		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R753,54		ERJ2GEJ333	M.RESISTOR CH 2W 33K	2	
R755		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R756		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R759,60		ERJ2GEJ333	M.RESISTOR CH 2W 33K	2	
R762		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R765		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R766		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R767		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R768		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R790		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
RA301,02		EXB24V102JX	RESISTOR-RESISTOR	2	
RA312		EXB24V473JX	RESISTOR-RESISTOR	1	
RA318,19		EXB24V473JX	RESISTOR-RESISTOR	2	
RA320-22		EXB24V102JX	RESISTOR-RESISTOR	3	
RA324,25		EXB24V102JX	RESISTOR-RESISTOR	2	
RA327-29		EXB24V102JX	RESISTOR-RESISTOR	3	
RA338		EXB24V473JX	RESISTOR-RESISTOR	1	
RA343		EXB24V473JX	RESISTOR-RESISTOR	1	
RA344-49		EXB24V102JX	RESISTOR-RESISTOR	6	
TH701		VRT0032K152	THERMISTER	1	
X201		VSX0591	CRYSTAL OSCILLATOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
X301		EF0S1605E5	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3926	SHIELD COVER	1	
		VMZ2210	SHIELD BARRIER	1	
		VMZ2216	SHIELD BARRIER	1	
	■	ESU39011	CAMERA OPERATION UNIT		(RTL)
B501		VJS2961C022	CONNECTOR (FEMALE) 22P	1	
D057		MA142WA	DIODE	1	
D058		MA142WK	DIODE	1	
D6501		MA128	DIODE	1	
D6502		MA128	DIODE	1	
D6503		MA142K	DIODE	1	
D6504		LN1251CAL	DIODE	1	
D6505		LN1351C	DIODE	1	
FP501		VJS3442D023	CONNECTOR (FEMALE) 23P	1	
FP503		VJS2958D010	CONNECTOR (FEMALE) 10P	1	
	■	VEP03A55B	VTR MAIN C.B.A.		(RTL)
B3001		VJP2962A012	CONNECTOR (MALE) 12P	1	
B6001		VJP3126B028	CONNECTOR (MALE) 28P	1	
B6007		VJP3358C016	CONNECTOR (MALE) 16P	1	
C3002		ECEV05A470	E.CAPACITOR 4V 47U	1	
C3003,04		ECEV0GA471	E.CAPACITOR 4V 470U	2	
C3005		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	1	
C3006		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3007		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3008		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3009		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3010		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3011,12		ECST1AY475Z	T.CAPACITOR 10V 4.7U	2	
C3013		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3014		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3015		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3016		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C3017		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3018		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3019		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C3021,22		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	2	
C3023		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3024		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3025		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3026		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3028		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3029		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3030		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3031		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3032		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3033		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3036		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C3037		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3041		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3042		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3043		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3044		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3045		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3046		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3047		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3048		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3049		ECST1CY105Z	T.CAPACITOR 16V 1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3050		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C3051		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3052		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3054		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3055		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3059		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C3060		ECEV1EA4R7	E.CAPACITOR 25V 4.7U	1	
C3061		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C3062		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3063		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3065		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3071		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C3072		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3075		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3081		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3083		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3085		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C3087		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3208		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3209		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3210		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3211		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C3214		ECUM1E393KBN	C.CAPACITOR CH 25V 0.039U	1	
C3215		ECST1AY475Z	T.CAPACITOR 10V 4.7U	1	
C3260		ECFF1H104ZF	S.CAPACITOR 50V 0.1U	1	
C4003		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C4004		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4006		ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C4007		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C4009		ECST1CY225Z	T.CAPACITOR 16V 2.2U	1	
C4010		ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	1	
C4011		ECUX1H122KBV	C.CAPACITOR CH 50V 1200P	1	
C4012		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C4013		ECST1CY225Z	T.CAPACITOR 16V 2.2U	1	
C4014		ECUX1C153KBV	C.CAPACITOR CH 16V 0.015U	1	
C4015		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4017,18		ECST1CY335Z	T.CAPACITOR 16V 3.3U	2	
C4019		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C4021		ECEV1HA010	E.CAPACITOR 50V 1U	1	
C4022		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C4023		ECUM1C223KBV	C.CAPACITOR CH 16V 0.022U	1	
C4024		ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
C4025		ECUM2A472JCM	C.CAPACITOR CH 4700P	1	
C4026		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4035		ECUX1C123KBV	C.CAPACITOR CH 16V 0.012U	1	
C4036,37		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C4038		ECEV0GA470	E.CAPACITOR 4V 47U	1	
C4039		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C4046		ECST1CY225Z	T.CAPACITOR 16V 2.2U	1	
C4047,48		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	2	
C4049		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C4050		ECUX1H122KBV	C.CAPACITOR CH 50V 1200P	1	
C4053		ECUX1H392KBV	C.CAPACITOR CH 50V 3900P	1	
C4054		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C4057		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C4501,02		ECEV05A470	E.CAPACITOR 4V 47U	2	
C4503,04		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C4507		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4508		ECUX1H391JCV	C.CAPACITOR CH 50V 390P	1	
C4509		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C4511		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4512		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C4513		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C4515		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4516		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C4517		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C4518		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4519,20		ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	2	
C4521		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4523		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C4524		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C4525		ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C4527,28		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C5001		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5002,03		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C5004		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5009		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5010		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5011		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5012		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5013		ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C5014		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C5015		ECUM1H153KBN	C.CAPACITOR CH 50V 0.015U	1	
C5016		ECUM1E273KBN	C.CAPACITOR CH 25V 0.027U	1	
C5017-23		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	7	
C5024-29		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	6	
C5030		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5031		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5032,33		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C5034		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5035		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5036,37		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C5038,39		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5040-42		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	3	
C5043		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5048		ECUM1C683KBN	C.CAPACITOR 50V 0.68U	1	
C5050		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5051		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5052		ECUX1H121JCV	C.CAPACITOR CH 50V 12P	1	
C5053		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C5054		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C5055,56		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C5057,58		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5059,60		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C5061		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5063		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C5085		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5086		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C5100		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C5101		ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C6001,02		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	2	
C6003,04		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C6007		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6008		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C6009,10		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6011		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6012		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C6013-15		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C6016		ECEV1CA220	E.CAPACITOR CH 10V 22U	1	
C6017		ECUM1E103ZFQ	C.CAPACITOR CH 25V 0.01U	1	
C6018		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C6020		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6021		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6022		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C6023,24		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6026		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C6027		ECEV0JA101	E.CAPACITOR 6.3V 100U	1	
C6028		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6031		ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	1	
C6032		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6040,41		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6042		ECST0GY156Z	T.CAPACITOR 4V 15U	1	
C6043		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C6044		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6050		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6051		ECUM1C225ZFM	C.CAPACITOR CH 16V 2.2U	1	
C6052		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6053		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C6101		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6102		ECEV05A470	E.CAPACITOR 4V 47U	1	
C6105		ECUM1E103ZFQ	C.CAPACITOR CH 25V 0.01U	1	
C6106		ECUX1H223ZFV	C.CAPACITOR CH 50V 0.022U	1	
C6107		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C6108		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C6109		ECUX1H561KBV	C.CAPACITOR CH 50V 560P	1	
C6110,11		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	2	
C6112		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6113		ECWU1C393JA5	W.CAPACITOR 16V 0.039U	1	
C6120		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C6181		ECEV1CA100	E.CAPACITOR 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6184		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C6185		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C6201		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C6202		ECRJA030E11	TRIMMER	1	
C6204		ECUX1H050CCV	C.CAPACITOR CH 50V 5P	1	
C6205		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6206		ECEV0JA101	E.CAPACITOR 6.3V 100U	1	
C6207		ECUM1H070CCV	C.CAPACITOR CH 50V 7P	1	
C6208		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C6210		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6211		ECUM1H104KBM	C.CAPACITOR CH 50V 0.1U	1	
C6212		ECUM1C474ZFN	C.CAPACITOR CH 16V 0.47U	1	
C6213		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C6218		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8001		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8002		ECUX1H060CCV	C.CAPACITOR CH 50V 6P	1	
C8003		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C8004		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C8005		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8006		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C8007		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8008		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8009		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C8010		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C8011,12		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8015		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8017		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C8018		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8019		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C8048		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C8049		ECST1AY475Z	T.CAPACITOR 10V 4.7U	1	
C8062		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C8063		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C8065		ECUM1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C8066		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C8067		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C8071		ECUX1H182KBV	C.CAPACITOR CH 50V 1800P	1	
C8072		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8074		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C8076		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C8077		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8078		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8101		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C8102		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C8103		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C8104		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8105		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C8107,08		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	2	
D3001,02		MA729	IC	2	
D3003		MA132WK	DIODE	1	
D3004		MA729	IC	1	
D3202		MA132WK	DIODE	1	
D3203		MA132K	DIODE	1	
D3204		MA133	DIODE	1	
D3205		MA728	DIODE	1	
D5001		MA159	DIODE	1	
D5002,03		MA132WA	DIODE	2	
D6001		MA133	DIODE	1	
D6003		MA132WK	DIODE	1	
D6005		MA3130	DIODE	1	
D6007		MA728	DIODE	1	
D6009		MA728	DIODE	1	
D6013		MA728	DIODE	1	
D6015		MA110	DIODE	1	
D6016		MA132WA	DIODE	1	
D6020-24		MA728	DIODE	5	
D6030		MA132WK	DIODE	1	
D6031		MA132WA	DIODE	1	
D6035		MA132K	DIODE	1	
D6040		MA728	DIODE	1	
D6201		MA132WA	DIODE	1	
D6202		MA132K	DIODE	1	
D6204		MA132K	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6206		MA729	IC	1	
D8001		MA132WK	DIODE	1	
FL3001		VLF1057	FILTER	1	
FL4501		VLF0934	FILTER	1	
FL4502		VLF0935	FILTER	1	
FP3002		VJS2960A010	CONNECTOR (FEMALE) 10P	1	
FP3003		VJS3452C018	CONNECTOR (FEMALE) 18P	1	
FP4001		VJS2958D009	CONNECTOR (FEMALE) 9P	1	
FP5001		VJS2959B023	CONNECTOR (FEMALE) 23P	1	
FP6001		VJS2959B016	CONNECTOR (FEMALE) 16P	1	
FP6002		VJS2959B006	CONNECTOR (FEMALE) 6P	1	
FP6004		VJS3442D023	CONNECTOR (FEMALE) 23P	1	
FP6201		VJS2959D010	CONNECTOR (FEMALE) 10P	1	
FP6202		VJS3452C024	CONNECTOR (FEMALE) 24P	1	
IC3001		VEFH25D	IC	1	
IC3002		MN3851MS	IC	1	
IC3003		AN3298NSB	IC	1	
IC3005		BA7062F	IC	1	
IC4001		AN3998FAP	IC	1	
IC4501		VEFH27B	IC	1	
IC5001		AN3352FHP	IC	1	
IC6001		MN6755240V8Q	IC	1	
IC6002		RH5RE38AA	IC	1	
IC6003		MN13821-Y	IC	1	
IC6004		BA6289F	IC	1	
IC6005		TC4S66F	IC	1	
IC6007		LM393DB	IC	1	
IC6008		UPD74HC00G	IC	1	
IC6013		TC4S66F	IC	1	
IC6015		TC4W53F	IC	1	
IC6016		UPD74HC32G	IC	1	
IC6181		LM358DB	IC	1	
IC6201		UPD17401G553	IC	1	
IC6202		S8420KF	IC	1	
IC6203		TC7W04F	IC	1	
IC8001		VEFH26B	IC	1	
IC8002		TL8841F	IC	1	
L3001		VLQ0319K101	COIL 100UH	1	
L3002		VLQ0319F150	COIL 15UH	1	
L3003		VLQ0426J560	COIL 56UH	1	
L3004		VLQ0319F150	COIL 15UH	1	
L3005		VLQ0163J121	COIL 120UH	1	
L3006		VLQ0426J3R9	COIL 3.9UH	1	
L3007		VLQ0426J150	COIL 15UH	1	
L3009		VLQ0319F150	COIL 15UH	1	
L3010		VLQ0426J470	COIL 47UH	1	
L3011		VLQ0426J150	COIL 15UH	1	
L3012		VLQ0426J100	COIL 10UH	1	
L3015		VLQ0426J680	COIL 68UH	1	
L3017		VLQ0426J680	COIL 68UH	1	
L3018		VLQ0319K680	COIL 68UH	1	
L3019		VLQ0319F150	COIL 15UH	1	
L3021		VLQ0426J330	COIL 33UH	1	
L3024		VLQ0319K101	COIL 100UH	1	
L3026		VLQ0319K101	COIL 100UH	1	
L3030		VLQ0426J330	COIL 33UH	1	
L4001		VLQ0423J153	COIL 15MH	1	
L4003		VLQ0319K470	COIL 47UH	1	
L4502		VLQ0319K221	COIL 220UH	1	
L4504		VLQ0426J560	COIL 56UH	1	
L5001-03		VLQ0319F150	COIL 15UH	3	
L5004		VLQ0319K101	COIL 100UH	1	
L5005		VLQ0401K120	COIL 12UH	1	
L5007		VLQ0319K101	COIL 100UH	1	
L5008		VLQ0319F150	COIL 15UH	1	
L5010		VLQ0319F150	COIL 15UH	1	
L6181		VLQ0319K560	COIL 56UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L6201		ELJFA560KF	COIL	1	
L8001		VLQ0426J270	COIL 27UH	1	
L8002,03		VLQ0426J100	COIL 10UH	2	
L8004		VLQ0319F150	COIL 15UH	1	
L8006		VLQ0426J330	COIL 33UH	1	
L8007		VLQ0319F150	COIL 15UH	1	
L8012		VLQ0319K560	COIL 56UH	1	
L8014		ELJFA101KB	COIL 100UH	1	
L8015		VLQ0426J150	COIL 15UH	1	
L8016		VLQ0133K471	COIL 470UH	1	
L8018		VLQ0426J470	COIL 47UH	1	
P4001		VJP3172B004	CONNECTOR (MALE) 4P	1	
Q3001		2SB970X	TRANSISTOR	1	
Q3002		2SD2216	TRANSISTOR	1	
Q3003		2SC4627	TRANSISTOR	1	
Q3004		2SD2216	TRANSISTOR	1	
Q3005		2SB1462	TRANSISTOR	1	
Q3006		2SD2216	TRANSISTOR	1	
Q3008-10		2SC4627	TRANSISTOR	3	
Q3011		2SB1462	TRANSISTOR	1	
Q3012		2SD2216	TRANSISTOR	1	
Q3014		2SB1462	TRANSISTOR	1	
Q3021		2SB1462	TRANSISTOR	1	
Q3204		XP4601	TRANSISTOR-RESISTOR	1	
Q4001		2SD2216	TRANSISTOR	1	
Q4002		2SB1462	TRANSISTOR	1	
Q4003		XP6501	TRANSISTOR-RESISTOR	1	
Q4004		2SD2216	TRANSISTOR	1	
Q4005		2SB1219	TRANSISTOR	1	
Q4006		2SD602-R	TRANSISTOR	1	
Q4010		2SD2216	TRANSISTOR	1	
Q4011		2SB1462	TRANSISTOR	1	
Q4012		XP6401	TRANSISTOR-RESISTOR	1	
Q4013		XP1401	TRANSISTOR-RESISTOR	1	
Q4014		XP4601	TRANSISTOR-RESISTOR	1	
Q4017		2SD2216-R	TRANSISTOR	1	
Q4018		XP4601	TRANSISTOR-RESISTOR	1	
Q4019		2SD2216-R	TRANSISTOR	1	
Q4020		2SD2216	TRANSISTOR	1	
Q4501,02		2SD1979	TRANSISTOR	2	
Q4552		2SD2216	TRANSISTOR	1	
Q5001,02		XN4506	TRANSISTOR-TRANSISTOR	2	
Q5003		2SB970X	TRANSISTOR	1	
Q5004,05		2SA812	TRANSISTOR	2	
Q5006,07		XN1501	TRANSISTOR-TRANSISTOR	2	
Q5010		2SB970X	TRANSISTOR	1	
Q6001,02		2SD2216	TRANSISTOR	2	
Q6101		2SB1462	TRANSISTOR	1	
Q6105		2SD2216	TRANSISTOR	1	
Q6181		2SB970X	TRANSISTOR	1	
Q6204		2SK198	TRANSISTOR	1	
Q6205		XN1501	TRANSISTOR-TRANSISTOR	1	
Q6208		2SB1462	TRANSISTOR	1	
Q6209		2SD1819	TRANSISTOR	1	
Q8001,02		2SC4627	TRANSISTOR	2	
Q8003		2SB1462	TRANSISTOR	1	
Q8004,05		2SD2216	TRANSISTOR	2	
Q8006		2SC4627	TRANSISTOR	1	
Q8009		2SD2216	TRANSISTOR	1	
QR3001		UN9212	IC	1	
QR3002		UN9213	IC	1	
QR3004		UN9211	IC	1	
QR3005		UN9213	IC	1	
QR3008-10		UN9212	IC	3	
QR3013-16		UN9212	IC	4	
QR3019		UN9212	IC	1	
QR3204,05		UN9212	IC	2	
QR4001		UN9113	IC	1	
QR4004		UN9217	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR4005		UN9112	IC	1	
QR4006		UN9210	IC	1	
QR4502		UN9112	IC	1	
QR4503		UN9213	IC	1	
QR4551		XP1213	TRANSISTOR-RESISTOR	1	
QR5001,02		XP1213	TRANSISTOR-RESISTOR	2	
QR6001		UN9112	IC	1	
QR6002		XN4130X	TRANSISTOR-RESISTOR	1	
QR6003,04		UN9213	IC	2	
QR6005		UN9210	IC	1	
QR6010		XP4115	TRANSISTOR-RESISTOR	1	
QR6013		UN9213	IC	1	
QR6014		UN9212	IC	1	
QR6015		UN2130X	IC	1	
QR6019		UN9215	TRANSISTOR-RESISTOR	1	
QR6023		UN9212	IC	1	
QR6024,25		XP4501	TRANSISTOR-RESISTOR	2	
QR6026		XP6501	TRANSISTOR-RESISTOR	1	
QR6027		XP1213	TRANSISTOR-RESISTOR	1	
QR6028		UN2130X	IC	1	
QR6101		UN9215	TRANSISTOR-RESISTOR	1	
QR6105		UN9113	IC	1	
QR6181		XP4312	TRANSISTOR-RESISTOR	1	
QR6202		UN5212	TRANSISTOR-RESISTOR	1	
QR8101		UN9212	IC	1	
QR8103		UN9213	IC	1	
R3001		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R3002		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R3003,04		ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R3005		ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R3006		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3007		ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R3008		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3010		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R3011		ERJ2GEJ682	M.RESISTOR CH 2W 6.8K	1	
R3012		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R3013		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R3014,15		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R3016		ERJ2GEJ564	M.RESISTOR CH 2W 56K	1	
R3017		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R3018		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3021		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R3022		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	1	
R3023		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R3024		ERJ2GEJ821	M.RESISTOR CH 2W 820	1	
R3025		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R3026		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R3028		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3030		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R3031		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3033		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R3042		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3043		ERJ2GEJ562	M.RESISTOR CH 2W 5.6K	1	
R3044		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R3045		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R3046		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R3048		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R3049		ERJ3GEYJ152	M.RESISTOR 1/16W 1.5K	1	
R3051		ERJ2GEJ393	M.RESISTOR CH 2W 39K	1	
R3052		ERJ2GEJ474	M.RESISTOR CH 2W 470K	1	
R3053		ERJ3GEYG134	M.RESISTOR 1/16W 13K	1	
R3054		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R3055		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R3058		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3059		ERJ3GEYJ471	M.RESISTOR 1/16W 470	1	
R3060-62		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	3	
R3063		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3064		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R3065		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R3066		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R3067		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R3068,69		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R3070		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3071		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R3072		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3073		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3074,75		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R3076		ERJ3GEYJ471	M.RESISTOR 1/16W 470	1	
R3077		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3079		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R3080		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R3081		ERJ2GEJ682	M.RESISTOR CH 2W 6.8K	1	
R3089		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R3090		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R3091		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R3092		ERJ2GEJ821	M.RESISTOR CH 2W 820	1	
R3097		ERJ2GEJ224	M.RESISTOR CH 2W 220K	1	
R3098		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R3102		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3103		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R3104		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R3107		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R3111		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R3113		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3131		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R3201		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3213		ERJ2GEJ334	M.RESISTOR CH 2W 330K	1	
R3214		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R3215		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R3225		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R3234		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R3236		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3237,38		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R3240-42		ERJ2GEJ102	M.RESISTOR CH 2W 1K	3	
R3243		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R3244		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R3245		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	1	
R3246		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R3601		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R4001		ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R4002		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R4003		ERJ2GEJ394	M.RESISTOR CH 2W 390K	1	
R4004		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R4005		VRE0071E152	RESISTOR	1	
R4007		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R4008		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R4009		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R4010		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R4011		ERJ2GEJ394	M.RESISTOR CH 2W 390K	1	
R4012		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4013		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4014		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R4015		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4016,17		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	2	
R4019		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R4020		VRE0071E471	RESISTOR	1	
R4021		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R4022		VRE0071E562	M.RESISTOR	1	
R4023		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R4024		VRE0071E182	RESISTOR	1	
R4027		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R4028		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R4029		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R4030		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R4031		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R4034		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R4035		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R4036		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4037,38		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2	
R4039		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R4041,42		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2	
R4043		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R4044		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	1	
R4045		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R4046		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R4047		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R4048		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R4049,50		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4051		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R4052,53		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R4055		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R4056		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R4057,58		ERJ3GEYJ471	M.RESISTOR 1/16W 470	2	
R4060		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R4061		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R4062		ERJ2GEJ154	M.RESISTOR CH 2W 150K	1	
R4501,02		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R4503		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R4504		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R4506		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R4507		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4513		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R4515		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R4517,18		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R4522,23		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	2	
R4524,25		ERJ6GEYJ121	M.RESISTOR CH 1/10W 120	2	
R4551		ERJ2GEJ154	M.RESISTOR CH 2W 150K	1	
R5001		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5002		ERJ3GEYJ682	M.RESISTOR 1/16W 6.8K	1	
R5003		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R5005		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R5006-08		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	3	
R5011		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R5012,13		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R5014		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R5015,16		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	2	
R5024		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R5025		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5026		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R5027		ERJ3GEYJ822	M.RESISTOR 1/16W 8.2K	1	
R5028		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5029,30		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	2	
R5031,32		ERJ2GE0R00	M.RESISTOR CH 2W 0	2	
R5033		ERJ3GEYJ155	M.RESISTOR CH 1/16W 1.5M	1	
R5054,55		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	2	
R5056		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R5070		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R5071		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R5072		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R5100		ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R6001-09		ERJ2GEJ473	M.RESISTOR CH 2W 47K	9	
R6010		ERJ8GEYJ2R2	M.RESISTOR 1/8W 2.2	1	
R6011		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6012-14		ERJ2GEJ102	M.RESISTOR CH 2W 1K	3	
R6015		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6016-20		ERJ2GEJ102	M.RESISTOR CH 2W 1K	5	
R6021		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R6022-28		ERJ2GEJ102	M.RESISTOR CH 2W 1K	7	
R6029		ERJ2GEJ563	M.RESISTOR CH 2W 56K	1	
R6030		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R6031		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6032		ERJ2GEJ682	M.RESISTOR CH 2W 6.8K	1	
R6034		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6035		VRE0067G333	RESISTOR	1	
R6036		VRE0067G223	RESISTOR	1	
R6037		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6038		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R6039		ERJ8GEYJ120	M.RESISTOR 1/8W 12	1	
R6040		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R6041		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R6042		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R6043		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R6044		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R6045		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6046		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6047		ERJ2GEJ274	M.RESISTOR CH 2W 270K	1	
R6048		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R6049		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6050		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R6051		ERJ2GEJ393	M.RESISTOR CH 2W 39K	1	
R6052,53		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R6055		ERJ8GEYJ821	M.RESISTOR 1/8W 820	1	
R6057		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6058		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R6059		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6061		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6063		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R6070		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R6072-74		ERJ2GEJ102	M.RESISTOR CH 2W 1K	3	
R6075		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R6076		ERJ2GEJ224	M.RESISTOR CH 2W 220K	1	
R6077		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R6079		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R6080		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6081		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R6082		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6083-85		ERJ2GEJ473	M.RESISTOR CH 2W 47K	3	
R6087		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6090		ERJ2GEJ393	M.RESISTOR CH 2W 39K	1	
R6091		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6092		ERJ2GEJ393	M.RESISTOR CH 2W 39K	1	
R6093		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	1	
R6094,95		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R6096		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R6100		ERJ2GEJ124	M.RESISTOR CH 2W 120K	1	
R6101		ERJ2GEJ334	M.RESISTOR CH 2W 330K	1	
R6102		ERJ2GEJ474	M.RESISTOR CH 2W 470K	1	
R6105		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6106		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6109		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6110		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6111,12		ERJ2GEJ473	M.RESISTOR CH 2W 47K	2	
R6114		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6115		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6116		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6117		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6118		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6120		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R6121		ERJ3GEYJ155	M.RESISTOR CH 1/16W 1.5M	1	
R6122		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6123		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6124		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6125		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6126		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6127		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6128		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R6129		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6130-32		ERJ2GEJ104	M.RESISTOR CH 2W 100K	3	
R6133		ERJ8GEYJ2R2	M.RESISTOR 1/8W 2.2	1	
R6134		ERJ2GEJ224	M.RESISTOR CH 2W 220K	1	
R6135		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6136		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6137		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6138		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6140		ERJ2GEJ821	M.RESISTOR CH 2W 820	1	
R6141		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6142		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6143-45		ERJ2GEJ103	M.RESISTOR CH 2W 10K	3	
R6146		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6147		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6148,49		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R6150		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6151		ERJ2GEJ562	M.RESISTOR CH 2W 5.6K	1	
R6160,61		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R6162		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R6163		ERJ2GEJ274	M.RESISTOR CH 2W 270K	1	
R6164		ERJ2GEJ154	M.RESISTOR CH 2W 150K	1	
R6181		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R6182		ERJ2GEJ123	M.RESISTOR CH 2W 12K	1	
R6183		ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	
R6184		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	1	
R6186		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6187		ERJ2GEJ123	M.RESISTOR CH 2W 12K	1	
R6188		ERJ2GEJ562	M.RESISTOR CH 2W 5.6K	1	
R6189,90		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R6204		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6205-08		ERJ2GEJ104	M.RESISTOR CH 2W 100K	4	
R6209-12		ERJ2GEJ101	M.RESISTOR CH 2W 1K	4	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6213,14		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	2	
R6215		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6217		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6219,20		ERJ2GEJ101	M.RESISTOR CH 2W 1K	2	
R6221		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R6222		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6223		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R6224		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6225,26		ERJ2GEJ101	M.RESISTOR CH 2W 1K	2	
R6233-36		ERJ2GEJ102	M.RESISTOR CH 2W 1K	4	
R6238		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R6250		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6251		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6252		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6253		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6261		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6263		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6266		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6267		ERJ2GEJ563	M.RESISTOR CH 2W 56K	1	
R6268		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6270		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R6271		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6272,73		ERJ2GEJ473	M.RESISTOR CH 2W 47K	2	
R6274		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R8003		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R8004		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R8005		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R8006,07		ERJ2GEJ471	M.RESISTOR CH 2W 470	2	
R8008		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R8009		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R8010		ERJ3GEYJ472	M.RESISTOR 1/16W 4.7K	1	
R8011		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R8012		ERJ2GEJ181	M.RESISTOR CH 2W 180	1	
R8014		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R8015		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R8016		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	1	
R8017		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R8022		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R8025,26		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R8027		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R8039		ERJ2GEJ821	M.RESISTOR CH 2W 820	1	
R8044		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R8045		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R8054		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R8057,58		ERJ2GEJ474	M.RESISTOR CH 2W 470K	2	
R8062		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R8063		ERJ2GEJ471	M.RESISTOR CH 2W 470	1	
R8064		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R8069,70		ERJ2GEJ681	M.RESISTOR CH 2W 680	2	
R8071,72		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R8074		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R8076		ERJ2GEJ273	M.RESISTOR CH 2W 27K	1	
R8077		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R8078		ERJ2GEJ391	M.RESISTOR CH 2W 390	1	
R8079		ERJ2GEJ151	M.RESISTOR CH 2W 150	1	
R8080		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R8088		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8111		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R8114		ERJ3GEYJ102	M.RESISTOR 1/16W 1K	1	
R8115		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R8116		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
T4001		EIQ6QB008T	TRANSFORMER	1	
VR3004		EVM7JSX30B53	V.RESISTOR 5K	1	
VR3005		EVM7JSX30B23	V.RESISTOR 2K	1	
VR3006		EVM7JSX30B14	V.RESISTOR 10K	1	
VR3007		EVM7JSX30B54	V.RESISTOR 50K	1	
VR3008		EVM7JSX30B52	V.RESISTOR 500	1	
VR4002		EVM7JSX30B54	V.RESISTOR 50K	1	
VR4501		EVM7JSX30B23	V.RESISTOR 2K	1	
VR6201		EVM7JSX30B15	V.RESISTOR 100K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
X6001		VSX0461	CRYSTAL OSCILLATOR	1	
X6002		VSX0602	CRYSTAL OSCILLATOR	1	
X6201		VSX0472	CRYSTAL OSCILLATOR	1	
X6202		VSX0568	CRYSTAL OSCILLATOR	1	
X8001		VSX0419	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3927	SHIELD COVER	1	
		VSC3928	SHIELD COVER	1	
		VMZ2216	BARRIER	1	

INTERNAL REFERENCE CODES

NOTE: This chart is only for internal reference.
Do not order any parts according to these codes.

P. C. B.	FILM CODE
CAMERA MAIN	HOMF00-23169
VTR MAIN	HOMF01-03A55

ORDER NO. VMD9506M127

Service Manual

Panasonic S-VHS-C VHS PAL 625

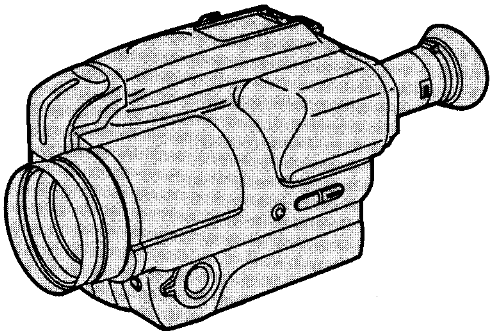
Hi-Fi HQ

S-VHS-C Movie

NV-S77E/B/A

DL-MECHANISM

General Description
Adjustment Procedures
Block/Schematic Diagrams
Exploded Views/Parts List



SPECIFICATIONS

ITEM	SPECIFICATION
POWER	Source: Battery Pack; 4.8V AC Adaptor; 6.0V Consumption; 7.9W (Battery operation)
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL
FM AUDIO RECORDING SYSTEM	4 rotary heads, helical scanning system
TAPE FORMAT	S-VHS-C/VHS-C Cassette Tape (Tape width 12.7mm)
TAPE SPEED	23.39mm/s Record/Playback Time: 45min. with NV-SEC45XD FF/REW Time: less than 5min. with NV-SEC45XD
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)
	STANDARD ILLUMINATION: 1,400 lux
	MINIMUM REQUIRED ILLUMINATION: 1 Lux (Low Light Mode)
	LENS: 14:1 Wide-angle/Variable Speed Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Auto Focus System, F1.8 (3.9~54.6mm), Filter Diameter 43mm
	IMAGE SENSOR: 1/3 inch CCD Image Sensor
	VIEWFINDER: 0.5 inch Electronic Viewfinder

ITEM	SPECIFICATION
VIDEO	HEADS: 4 rotary heads, 1 flying erase head
	OUTPUT: PHONO CONNECTOR; 1.0Vp-p 75Ω unbalanced S-VIDEO OUT; 1.0Vp-p 75Ω unbalanced
AUDIO	HEAD: 1 Stationary head (Normal-Mono) 4 rotary heads; 2 channels (Hi-Fi Sound-Stereo)
	OUTPUT: PHONO CONNECTOR; −6dB, 47kΩ loaded/less than 1kΩ
	INPUT: MIC IN (M3); −70dBV/4.7kΩ or more unbalanced
Operating Temperature	0~40°C
Operating Humidity	10~80 %
WEIGHT	Approx. 870g (without Battery Pack)
DIMENSIONS	117(W)×116(H)×225(D) mm
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Cassette Adaptor 1 pc. Shoulder Strap 1 pc. AV Output Cable 1 pc. DC Input Cable 1 pc. Battery for Cassette Adaptor Operation 1 pc. Battery for Remote Controller 1 pc. 21 pin Adaptor (NV-S77E/B) 1 pc. S-Video Cable 1 pc. AC Cable 1 pc. Remote Controller 1 pc. Remote Controller Holder

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

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⚠ **WARNING**
This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

INTRODUCTION

This Service manual contains techinical information which will allow service personneles toundrstand and service this model.

Section 1 pressents you with some general information of features and controls, enabling you to become familiar with each function.

Section 2 contributes to your electrical adjustment as well disassemble and replacement procedures.

Section 3 contain block diagram which offers you information for checking and undrstanding each circuit. Schematic diagrams which give you much information such as waveforms, vlotage data, and so on.

Section 4 contain exploed views and parts list.

Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

Note :

The following items are separated from this model.
So, please refer to each Service Manual as follows.

SEPARATED ITEMS Contens of Separate volume	Order-Number For Service Manual	REMARKS
Adjustment procedure of Mechanism-Chassis	VMD9412M130	
Adjustment procedure of Camera	VMD9506M128	
AC Adaptor : VSK0317C. (VSK0317: AC adaptor for NV-S77 series)	VMD9501M104.	

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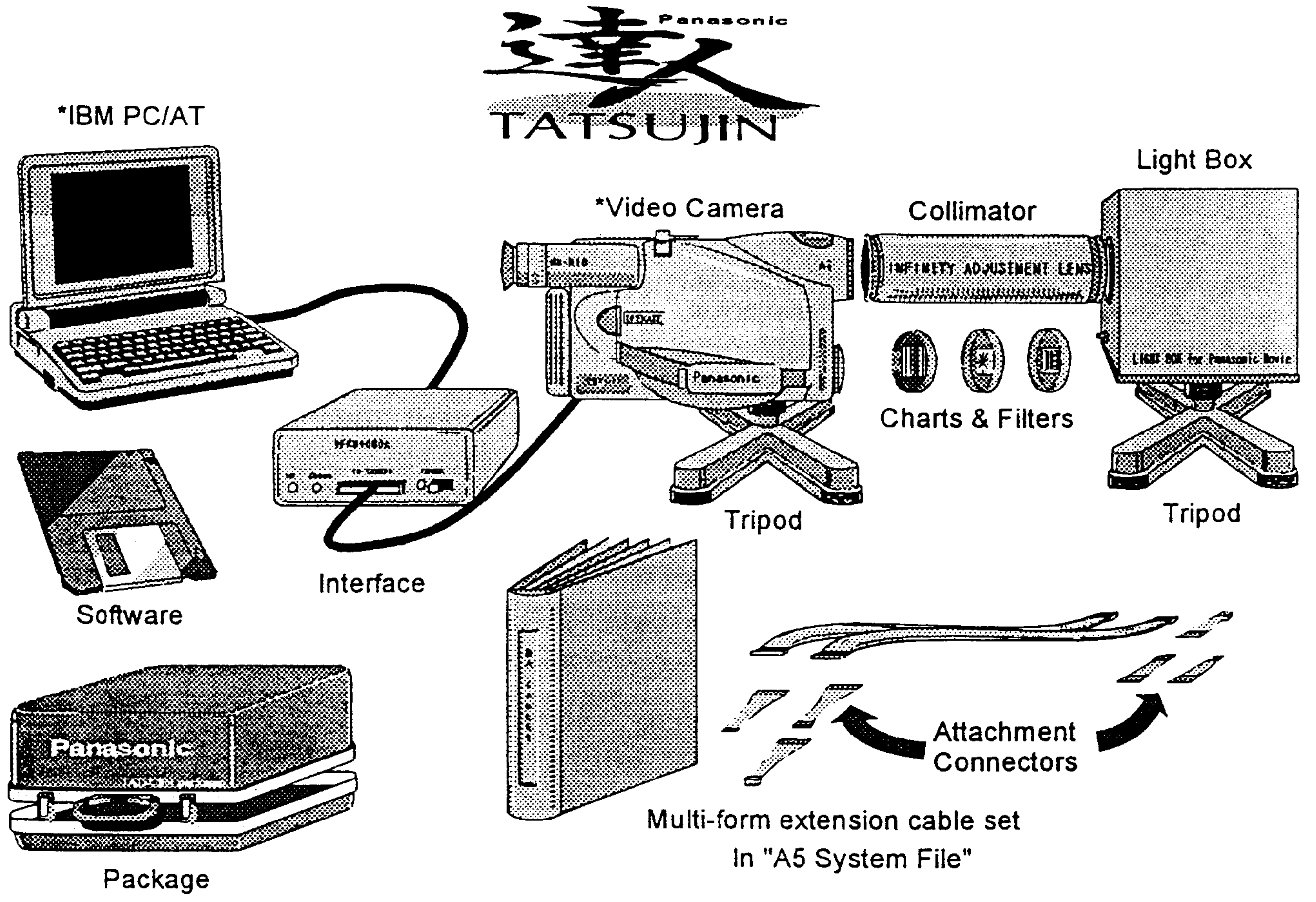
Technical Information

Subject: Introduction of new service device kit "TATSUJIN"(VED95TTJ).


Panasonic
TATSUJIN
*IBM PC/AT
*Video Camera
Collimator
Light Box
INFINITY ADJUSTMENT LENS
LIGHT BOX for Panasonic Movie
Charts & Filters
Tripod
Tripod
Interface
Software
Attachment Connectors
Multi-form extension cable set
In "A5 System File"
Panasonic
Package

A new service device kit for Video Camera,"TATSUJIN" Kit, is now avaiable from Panasonic. "TATSUJIN" is a Japanese word whic means a specialist, expert, or master in English. This naming was made because the kit will make you a"TATSUJIN" of Panasonic Video Camera servicing. The "TATSUJIN" itconsists ofthe following 3 items which are simply organized in a small package. All of which will drastically improve your productivity of Video Camera servicingin terms of Diagnosis, Adjustment, and Confirmation.

1. PC-EVR. (Interface, Software, Connecting Cables)

It connect a Camera to your IBM PC/AT so that the adjustment and trouble-shooting can be done easily on PC screen. The time used to taken by the camera adjustment will be reduced more than 60%. In addition, Its diagnosis support function helps you to improve the sservice efficiency drastically. The conventional EVR(VFK0644) will be replaced by this new computer-aided system.

Note:*PC and *Camera are not included in the kit. The minimum requirement of the PC is 80286 CPU, 1MB RAM, and MS-DOS 3.2. For further information, please contact Video Equipment Division.

2. Optical Set. (Collimator, Charts & Filters, Light Box, Tripods)

All of the opical devices which are indispensable to service a camera but used to take a hugg space to set up, are now drastically shrunk into a compact "Desk-top space".
Now you can easily aim various charts, COLOR-BAR, GRAY-SCALE, HUNTING, and WHITE, by simply attaching them to the collimator which is inserted in a compact light box.
So that you do not have to worry about restricting external light and measuring the distance from the chart.

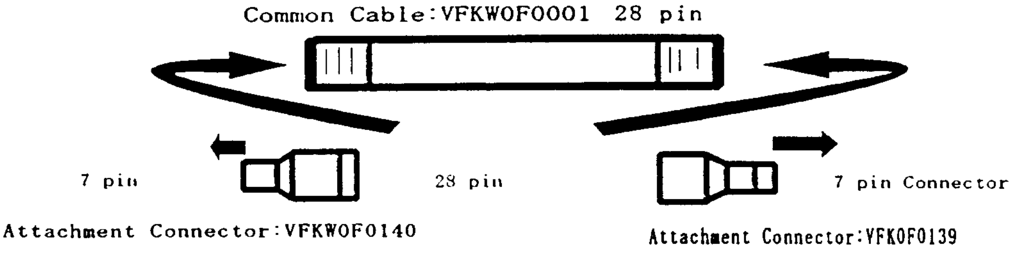
3. Multi-form Extension Cable Set.

Now you can make any kind of extension cable required, by simply changing the attachment connectors.
All of the connectors which cover all extension cables since 1990, are simply organized in a "A5 System file".
When you need a new connectot for a new model it can be purchased at extremely low price.

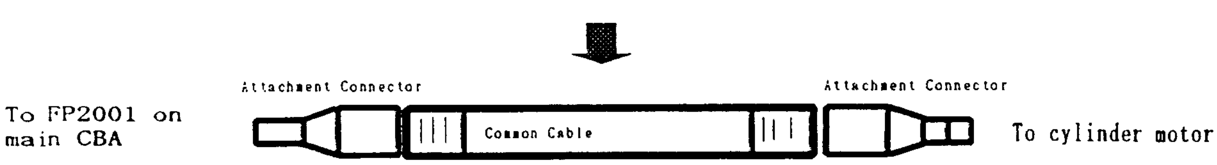
Note: Example for new type extension cables.

How to use the new type extension cables are as follows.
(This model requires new extension cables between FP2001 (Main) and CYLINDER.)

1. Attach the attachment connector (VFKW0F0139 & VFKW0F0140) to Common Cable(VFKW0F0001) as follows. Please check the direction of conductors between attachment connector and Common Cable.


Common Cable:VFKW0F0001 28 pin
7 pin
28 pin
7 pin Connector
Attachment Connector:VFKW0F0140
Attachment Connector:VFK0F0139

2. Connect the attachment connector (VFKW0F0139) to the Cylinder Motor.
3. Connect the attachment connector (VFKW0F0140) to the FP2001 on Main C.B.A.


Attachment Connector
Attachment Connector
To FP2001 on main CBA
Common Cable
To cylinder motor

Service caution.

1-1. Service Extension Cables.

Use the following extension cables when checking or adjusting individual circuit bords.
The new style extension cables are used for this model.
New Style Extension Cables(Mylti form Extension cable)⟹ Ref-No 9~20.

Ref	Part No.	PIN	Part Name	Connection	Q'ty	Remaks
1	VFK0498	4	EXTENSION CABLE	P4001(AUDIO) ~ MIC	1	
2	VFK0638	10	EXTENSION CABLE	P6006(MAIN) ~ SIDEL CASE (L)	1	
3	VFK0670	18	Flat Cable	FP6001(Main) ~ Mech.Chassis	1	
4	VFK0670	18	Flat Cable	FP2002(Main) ~ CAPSTAN	1	
5	VFK0728	9	Flat Cable	FP4001(Main) ~ A/C HEAD	1	
6	VFK0729	6	Flat Cable	FP6002(Main) ~ Mech.Chassis	1	
7	VFK0841	28	EXTENSION CABLE	PJ6001(Main) ~ B1001(POWER)	1	
8	VFK0888	10	Flat Cable	PP3002(MAIN) ~ AV JACK	1	
9	VFKW0F0139	7	Attachment Connector	FP2001(MAIN) ~ CYLINDER	1	
10	VFKW0F0001	28	COMMON Cable		1	
11	VFKW0F0140	7	Attachment Connector		1	
12	VFKW0F0143	16	Attachment Connector	FP301(PROCESS) ~ FP1001(POWER)	1	
13	VFKW0F0001	28	COMMON Cable		1	
14	VFKW0F0136	16	Attachment Connector		1	
15	VFKW0F0145	26	Attachment Connector	FP6003(MAIN) ~ CAMERA OP	1	
16	VFKW0F0001	28	COMMON Cable		1	
17	VFKW0F0138	16	Attachment Connector		1	
18	VFKW0F0147	28	Attachment Connector	FP301(PROCESS) ~ FP3003(MAIN)	1	
19	VFKW0F0001	28	COMMON Cable		1	
20	VFKW0T0001	16	Attachment Connector		1	

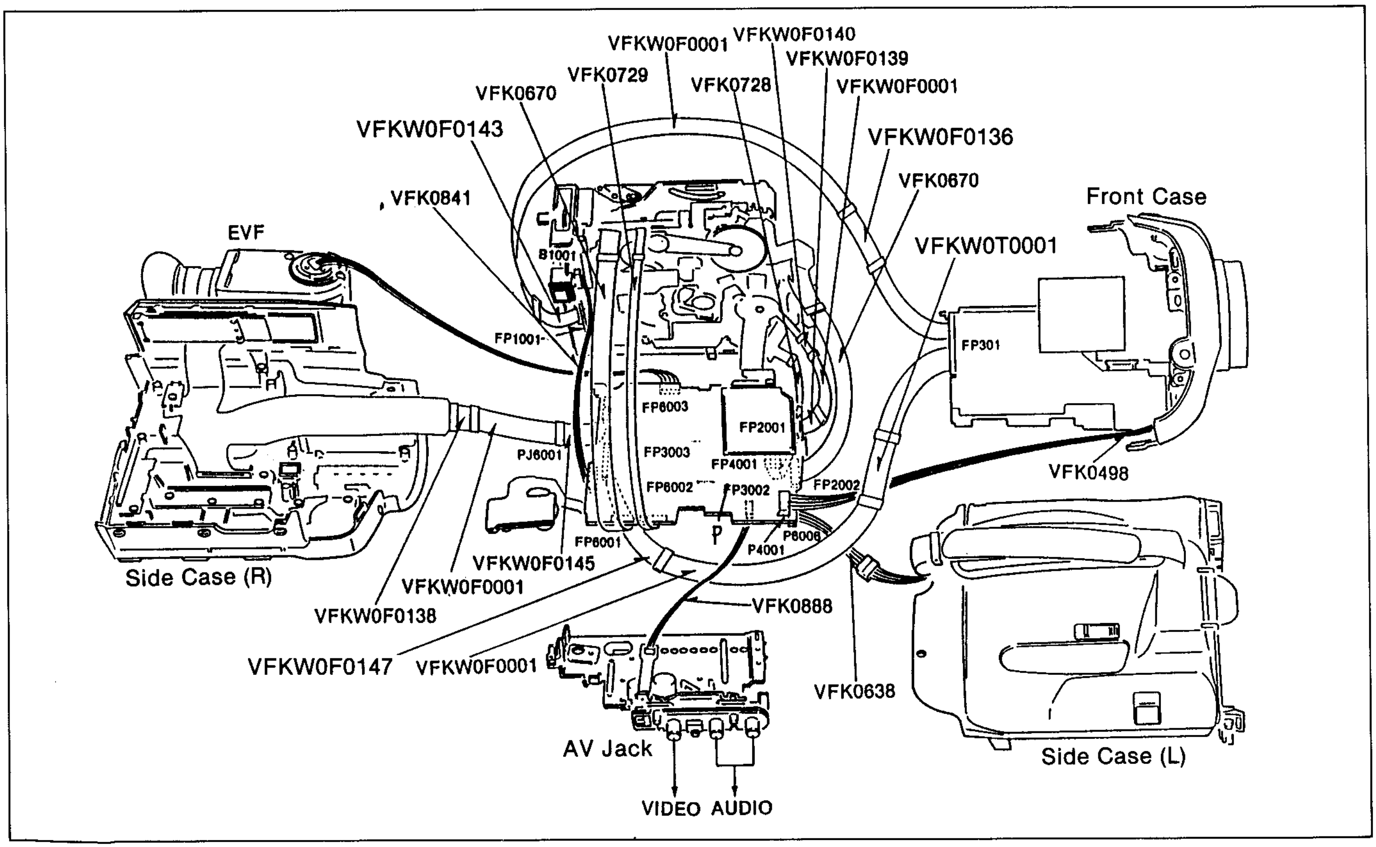

VFKW0F0001
VFKW0F0140
VFKW0F0139
VFK0729
VFK0728
VFKW0F0001
VFK0670
VFKW0F0143
VFKW0F0136
VFK0670
VFK0841
Front Case
EVF
B1001
VFKW0T0001
FP1001
FP301
FP6003
FP2001
PJ6001
FP3003
FP4001
FP6002
FP3002
FP2002
VFK0498
P6006
FP6001
P4001
VFKW0F0145
Side Case (R)
VFKW0F0001
VFKW0F0138
VFK0888
VFKW0F0147
VFKW0F0001
VFK0638
AV Jack
Side Case (L)
VIDEO
AUDIO

Fig. T1

The Built-in Lithium Battery

1. GENERAL DESCRIPTION

A built-in rechargeable lithium battery maintains the operation of the built-in clock when the Movie Camera is turned off. When the Movie Camera is in operation, this battery is charged automatically.
However, if the Movie Camera is not used for a very long time, the lithium battery can become exhausted. In this case, the "⊗" Indication in the Viewfinder flashes and the date returns to the initial Indication "1.1.1990".

2. HOW TO CHARGE THE LITHIUM BATTERY

■ How to Charge the Built-in Lithium Battery

If the "⊗" Indication in the Viewfinder flashes for approx. 10 seconds when you turn the Movie Camera on, the lithium battery is exhausted and must be charged as follows:

1. **Connect the Movie Camera to the AC Adaptor and leave it in this condition for several hours. It is not necessary to turn the Movie Camera on.**
   - ●After the lithium battery has been charged for approx. 4 hours, it can maintain the operation of the clock for approx. 3 months.

3. HOW TO REPLACE THE LITHIUM BATTERY

(PROCEDURES)

1. Remove the POWER C.B.A from Main Frame
   (Remove the Gold 2 Screw from Main Frame.
2. Unsolder the Lithium battery "VL2020" and then replace the new one. (See Fig B1)

Fig. B1

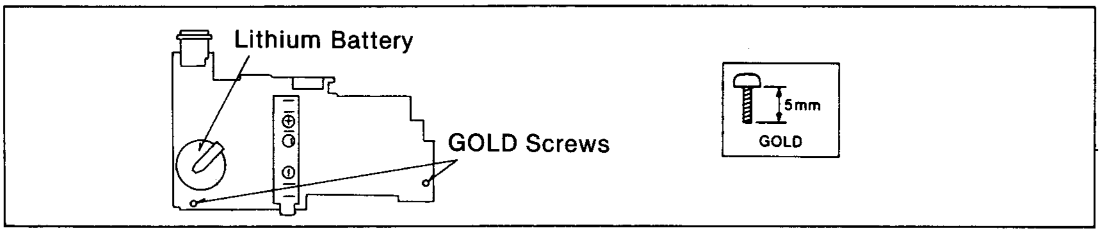


Fig. B1

NOTE:

The lithium battery is a critical component(Type No. :VL2020 Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacturer.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpse.
It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

SERVICE INFORMATION DISPLAY

General Description

This model has SERVICE INFORMATION DISPLAY function which facilitates quick trouble shooting.
You can turn on the Service Information Display, by performing the following procedures.
This causes the Service Information to be displayed on the EVF. (There are 4 kinds of SERVICE MODE, as shown below.) In the OSD Line Output Mode, Service Information can also be viewd on the TV.

MODE NAME	FUNCTION	How to turn it ON. (Push following keys simultaneously for at least 2 sec.)		
OSD Line Output MODE	· Checking the EVF information on the TV monitor.	DATE/TIME SET (UNDER THE EVF)	RESET (TOP PANEL)	DATE/TIME (SIDE PANEL)

MODE NAME	FUNCTION	How to turn it ON. (Push following keys simultaneously for at least 2 sec.)		
SERVICE MODE 1	· Remaining Battery A/D Value · Safety Device · Capstan/Cylinder injuctions	DATE/TIME SHIFT (TOP PANEL)	RESET (TOP PANEL)	DATE/TIME (SIDE PANEL)

MODE NAME	FUNCTION	How to turn it ON. (After chosing SERVICE MODE 1, Push [DATE/TIME] key. (SIDE PANEL)
SERVICE MODE 2	· Reference Voltage A/D Value · Mechanism position · Serial key code.	DATE TIME

MODE NAME	FUNCTION	How to turn it ON. (After chosing SERVICE MODE 2, Push [DATE/TIME] key. (SIDE PANEL)
SERVICE MODE 3	· ERROR CODE Display	DATE TIME

MODE NAME	FUNCTION	How to turn it ON. (After chosing SERVICE MODE 3, Push [DATE/TIME] key. (SIDE PANEL)
SERVICE MODE 4	INDICATION FOR·PG SHIFTER VALUE	DATE TIME

ERROR CODE DISPLAY

When undesirable conditions occur, the "ERROR CODE" will automatically be displayed on the EVF, the CAMERA LED will flash for a short time, then the power will be turned off.

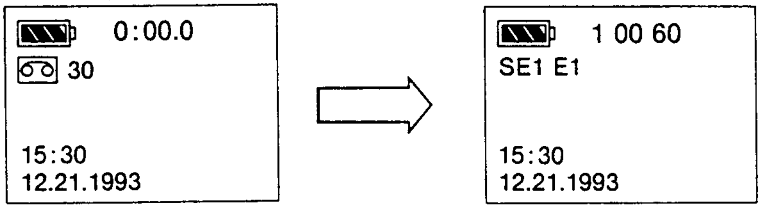
By turning on Service Mode 3, you can check to see what kind of undesirable condition occured, even after the ERROR CODE has disappeared. You can check the Error Code if the AC Main Lead or the Battery has been disconnected.
This model has the built in rechargeable Lithium Battery.
It maintain the operation of the built-in clock and error code for Service Mode when the Movie Camera turn off.
To clear the ERROR CODE, make shoot the IC6001 Pin 25 to GND for reset the IC6001.
Indication for Built in Clock return to intial condition when make shoot the IC6001 Pin 25 to GND.

SERVICE MODE 1

① Remaining Battery Voltage (A/D Value) = This Value shows the voltage at IC6001 Pin 98 which detects the battery under cut.

Desplay:
(Example)

(NORMAL) (SERVICE MODE 1)



For example ⇒ SE1 E1 (Means you are in Service Mode 1 and the voltage at IC6001 Pin 98 is 3.35V.)

★ When the voltage at IC6001 pin98(the battery remaining voltage) and the voltage (approx. 3.35V) at IC6001 Pin 99(the reference voltage) became same level, battery under cut will be detected.

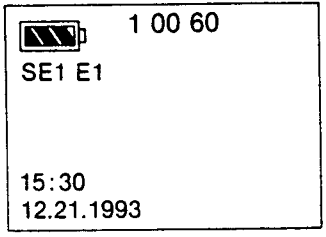
		Low Digit															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
High Digit	0	0	0.01	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.22
	1	0.24	0.25	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.37	0.39	0.40	0.41	0.43	0.45	0.46
	2	0.48	0.49	0.51	0.52	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.64	0.66	0.67	0.69	0.70
	3	0.72	0.73	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94
	4	0.95	0.97	0.98	1.00	1.01	1.03	1.04	1.06	1.07	1.09	1.10	1.12	1.13	1.15	1.16	1.18
	5	1.19	1.21	1.22	1.24	1.25	1.27	1.28	1.30	1.31	1.33	1.34	1.36	1.37	1.39	1.40	1.42
	6	1.43	1.45	1.46	1.48	1.49	1.50	1.52	1.53	1.55	1.56	1.58	1.59	1.61	1.62	1.64	1.65
	7	1.67	1.68	1.70	1.71	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.83	1.85	1.86	1.87	1.89
	8	1.91	1.92	1.94	1.95	1.97	1.98	2.00	2.01	2.03	2.04	2.06	2.07	2.09	2.10	2.12	2.13
	9	2.15	2.16	2.18	2.19	2.21	2.22	2.24	2.25	2.26	2.28	2.29	2.31	2.32	2.34	2.35	2.37
	A	2.38	2.40	2.41	2.43	2.44	2.46	2.47	2.49	2.50	2.52	2.53	2.55	2.56	2.58	2.60	2.61
	B	2.62	2.64	2.65	2.67	2.69	2.70	2.71	2.73	2.74	2.76	2.77	2.79	2.80	2.82	2.83	2.85
	C	2.86	2.88	2.89	2.91	2.92	2.94	2.95	2.97	2.98	2.99	3.01	3.02	3.04	3.05	3.07	3.08
	D	3.10	3.11	3.13	3.14	3.16	3.17	3.19	3.20	3.22	3.23	3.25	3.26	3.28	3.29	3.31	3.32
	E	3.34	3.35	3.37	3.38	3.40	3.41	3.43	3.44	3.46	3.47	3.49	3.50	3.52	3.53	3.55	3.56
	F	3.58	3.59	3.61	3.62	3.64	3.65	3.67	3.68	3.70	3.71	3.73	3.74	3.75	3.77	3.78	3.80

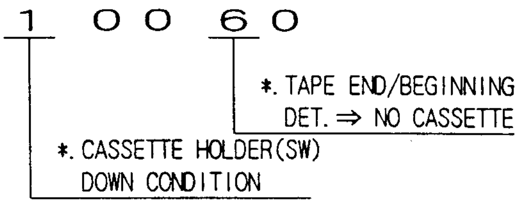
Remaining Battery Voltage (A/D value) (Voltage at IC6001 Pin 98)

② The condition of the tape, sefety device, capstan/cylinder information are shown in hexa decimal numbers.

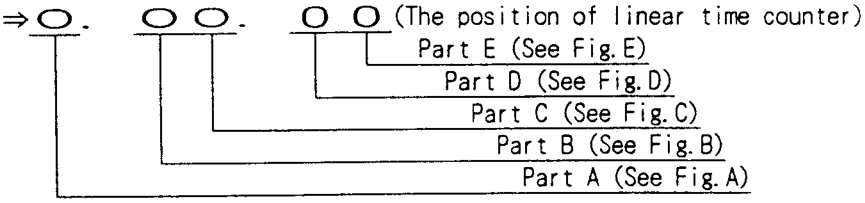
Desplay:
(Example)

(SERVICE MODE 1)


1 00 60
SE1 E1
15:30
12.21.1993


1 00 60
*. TAPE END/BEGINNING DET. ⇒ NO CASSETTE
*. CASSETTE HOLDER(SW) DOWN CONDITION

Display position ⇒


O. OO. O O
(The position of linear time counter)
Part E (See Fig.E)
Part D (See Fig.D)
Part C (See Fig.C)
Part B (See Fig.B)
Part A (See Fig.A)

CONTENTS \ DISPLAY	0	1	2	3	4	5	6	7	8	9	:	▷	◁	-	.	Φ
CASSETTE SW (CASS.DOWN:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
SAFETY TAB SW (TAB:1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
S-VHS OPERATIONSW (ON:1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
S-VHS DETECTION SW (S-VHS:1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig.A

CONTENTS \ DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
LOADING LOCK (DET. :1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
CYLINDER LOCK (DET. :1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
T-REEL LOCK (DET. :1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
S-REEL LOCK (DET. :1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig.B

CONTENTS \ DISPLAY	0	4	8	C
NOT USED(ALWAYS "0")	0	0	0	0
NOT USED(ALWAYS "0")	0	0	0	0
BATTERY UNDER CUT(DET:1)	0	1	0	1
DEW SENSOR (DET:1)	0	0	1	1

Fig.C

CONTENTS \ DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
UN-LOADING COMMAND (OUTPUT:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
TAPE END DETECTION (DET. :1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
TAPE BEGINNING DETECTION(DET. :1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
POSITION CHATARING (DET. :1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig.D

CONTENTS \ DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CYLINDER ON (OUTPUT:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
CAPSTAN ON (OUTPUT:1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
CAPSTAN REV. (OUTPUT:1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
LOADING ON (OUTPUT:1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig.E

SERVICE MODE 2

① Reference voltage A/D Value =This value shows the voltage at IC6001 Pin 99 which is used as a reference voltage to detect the battery under cut.

Desplay:
(Example)

(SERVICE MODE 1)

1 00 60
SE1 E1

15:30
12.21.1993

⇨

(SERVICE MODE 2)

3 00 FF
SE2 A7

15:30
12.21.1993

For example ⇒SE2 A7 (It shows Service Mode 2 and the voltage at IC6001 pin 99 is 2.49V.)

(unit:V)

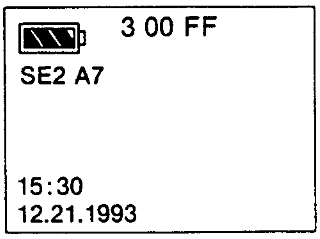
		Low Digit															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
High Digit	0	0	0.01	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.22
	1	0.24	0.25	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.37	0.39	0.40	0.41	0.43	0.45	0.46
	2	0.48	0.49	0.51	0.52	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.64	0.66	0.67	0.69	0.70
	3	0.72	0.73	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94
	4	0.95	0.97	0.98	1.00	1.01	1.03	1.04	1.06	1.07	1.09	1.10	1.12	1.13	1.15	1.16	1.18
	5	1.19	1.21	1.22	1.24	1.25	1.27	1.28	1.30	1.31	1.33	1.34	1.36	1.37	1.39	1.40	1.42
	6	1.43	1.45	1.46	1.48	1.49	1.50	1.52	1.53	1.55	1.56	1.58	1.59	1.61	1.62	1.64	1.65
	7	1.67	1.68	1.70	1.71	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.83	1.85	1.86	1.87	1.89
	8	1.91	1.92	1.94	1.95	1.97	1.98	2.00	2.01	2.03	2.04	2.06	2.07	2.09	2.10	2.12	2.13
	9	2.15	2.16	2.18	2.19	2.21	2.22	2.24	2.25	2.26	2.28	2.29	2.31	2.32	2.34	2.35	2.37
	A	2.38	2.40	2.41	2.43	2.44	2.46	2.47	2.49	2.50	2.52	2.53	2.55	2.56	2.58	2.60	2.61
	B	2.62	2.64	2.65	2.67	2.69	2.70	2.71	2.73	2.74	2.76	2.77	2.79	2.80	2.82	2.83	2.85
	C	2.86	2.88	2.89	2.91	2.92	2.94	2.95	2.97	2.98	2.99	3.01	3.02	3.04	3.05	3.07	3.08
	D	3.10	3.11	3.13	3.14	3.16	3.17	3.19	3.20	3.22	3.23	3.25	3.26	3.28	3.29	3.31	3.32
	E	3.34	3.35	3.37	3.38	3.40	3.41	3.43	3.44	3.46	3.47	3.49	3.50	3.52	3.53	3.55	3.56
	F	3.58	3.59	3.61	3.62	3.64	3.65	3.67	3.68	3.70	3.71	3.73	3.74	3.75	3.77	3.78	3.80

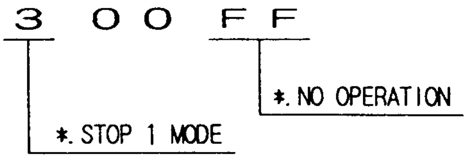
Reference Voltage (A/D value) (Voltage at IC6001 Pin 99)

② The contents of mechanism position, serial key code and mechanical process number are shown in hexa decimal number.

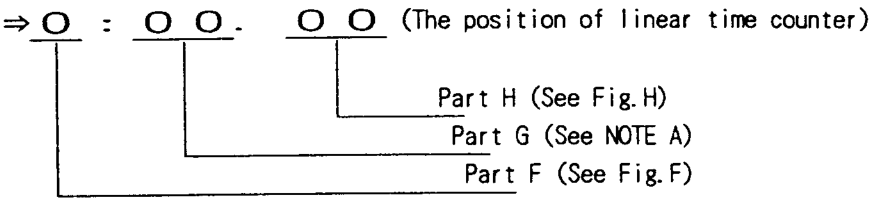
(SERVICE MODE 2)

Desplay:
(Example)


3 00 FF
SE2 A7
15:30
12.21.1993


3 00 FF
*. STOP 1 MODE
*. NO OPERATION

Display position


⇒0 : 00. 00
(The position of linear time counter)
Part H (See Fig. H)
Part G (See NOTE A)
Part F (See Fig. F)

DISPLAY	MECHANISM POSITION
1	EJECT
2	PRE・EJECT
3	STOP 1
4	PRE・STOP
5	(MID)
6	
7	
8	STOP 2
9	――――
A	PLAY

Fig. F (Mechanism Position)

DISPLAY	KEY CODE
0 0	STOP
0 1	EJECT
0 2	REW
0 3	FF
0 6	PAUSE
0 8	REC/REC PAUSE
0 A	PLAY
F F	NO OPERATION

Fig. H (Key code)

NOTE A:

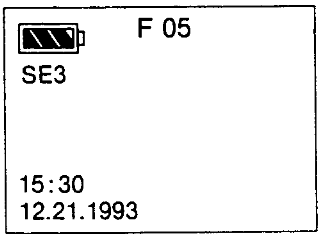
This part shows mechanism movement process.
However it changes too fast to read it.
When servicing, use the Part F (Mechaism Position:See Fig. F) in stead of Part G.
in stead of Part G.

SERVICE MODE 3

① When undesirable conditions occur, the Error Code is stored in IC6001 automatically, using the Lithum battery.
When you turn on Service Mode 3, the Error Code is displayed on the E.V.F.
Also, the CAMERA LED is flashed according to Error code.

Desplay:
(Example)

(SERVICE MODE 3)



F 05
*. Detected the Cylinder lock

Display position ⇒ 0 : 0 0. 0 0 (The position of linear time counter)
(See Fig. I)
Blank (no display)
01~05, 10~11
F or U

Display position⇒CAMERA LED (See Fig. J)

DISPLAY	CONDITION	The Power off timing
F 0 1	T－REEL LOCK	After 1 minute flashing LED
F 0 2	S－REEL LOCK	After 1 minute indicating LED
F 0 3	UNLOADING LOCK	After 1 minute indicating LED
F 0 4	LOADING LOCK	After 1 minute indicating LED
F 0 5	CYLINDER LOCK	After 1 minute indicating LED
F 5 1	FOCUS MOTOR LOCK	------------------
F 5 2	ZOOM MOTOR LOCK	------------------
U 1 0	DEW DETECTION	After 18 minute indicating LED
U 1 1	HEAD CLOGGING	Not turning off

Figure I Error Code

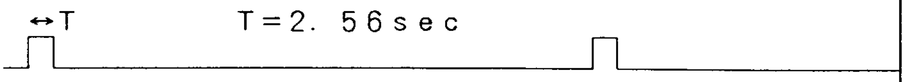
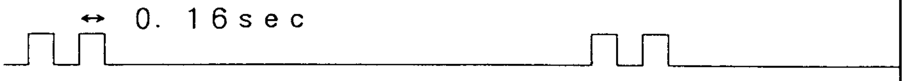
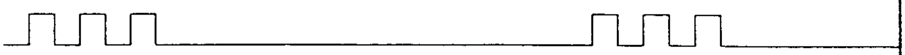
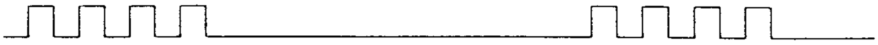
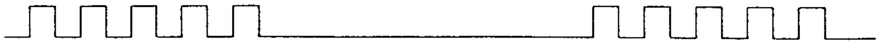
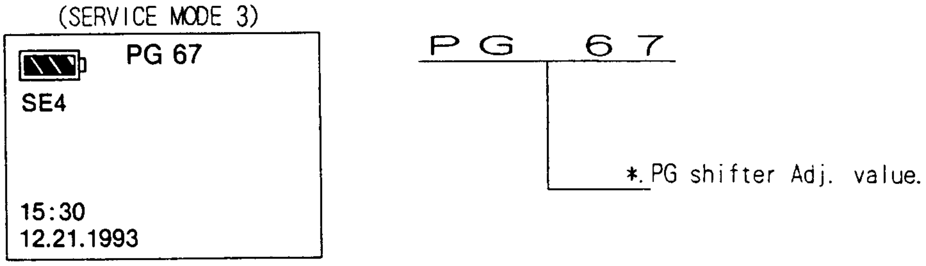
Lock Condition	Power LED Flashing Timming
T－REEL LOCK	
S－REEL LOCK	
UNLOADING LOCK	
LOADING LOCK	
CYLINDER LOCK	
OTHERS	Power LED is flashed at 1 Hz timing

Fig. J LED Flashing Timing

SERVICE MODE 4

① Service Mode 4 is PG SHIFTER ADJUSTMENT mode for Servo section.
For more detail, please refer to Adjustment Service Manual Order No. VMD9506M128

Desplay:
(Example)


(SERVICE MODE 3)
PG 67
SE4
15:30
12.21.1993
PG 67
*. PG shifter Adj. value.

3. How to Check Digital Circuit

3-1. Checking Principle

The digital circuit can be checked if a ramp signal(Sawtooth signal) is supplied to the input of A/D Converter(IC301-10).
The output of A/D Converter is described below.
In addtion to the A/D Converter IC301 output, all digital ICs input and output signals becomes specified pulses, which are listed in schematic diagram.

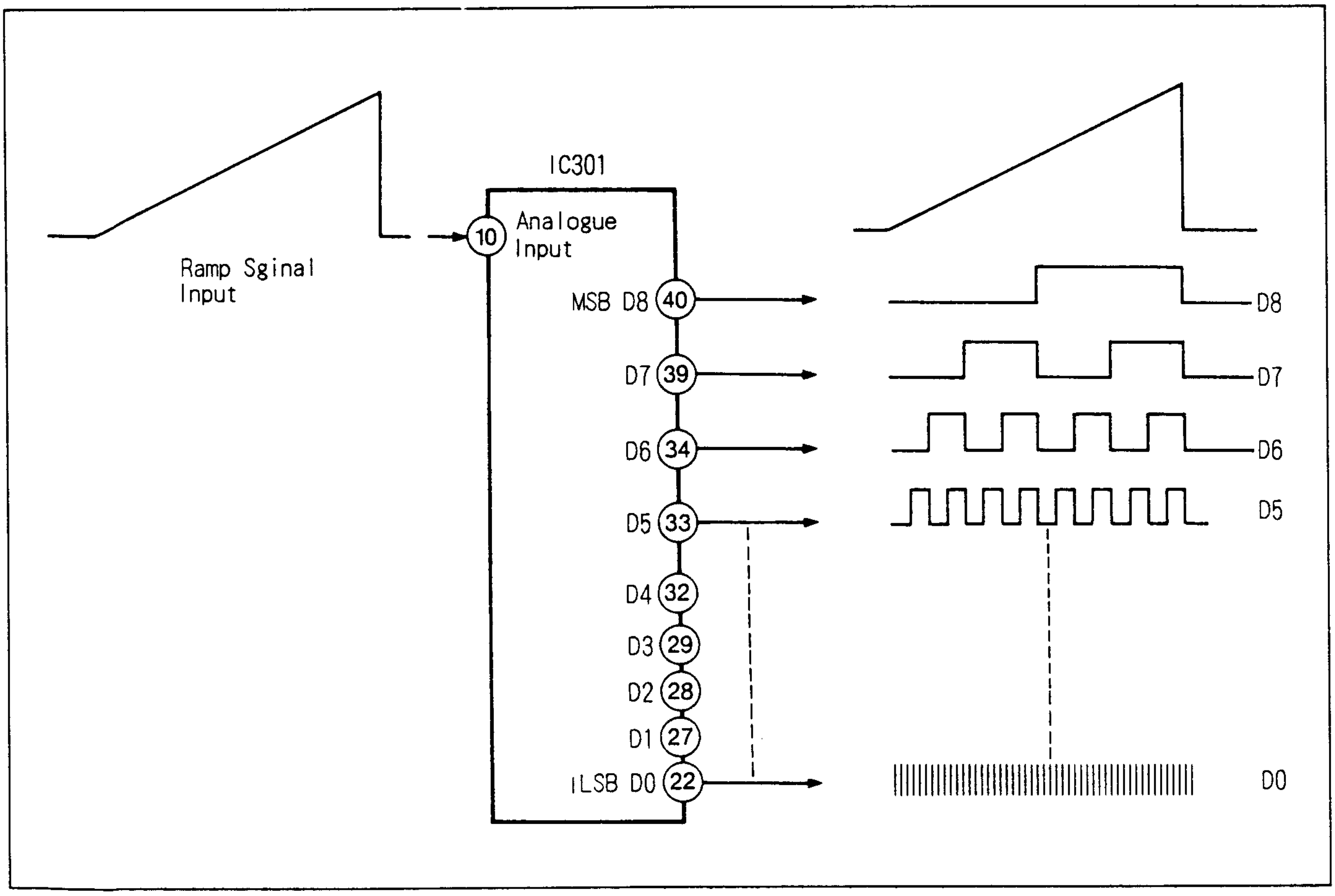
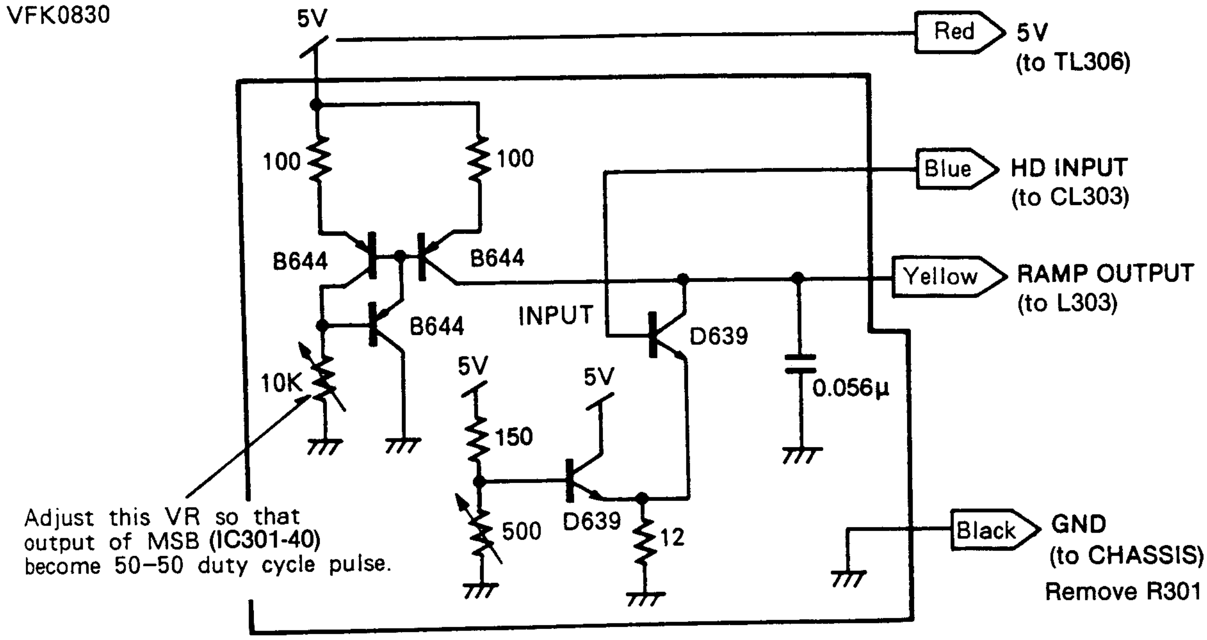

Ramp Sginal
Input
IC301
10
Analogue
Input
MSB D8 40
D7 39
D6 34
D5 33
D4 32
D3 29
D2 28
D1 27
ILSB D0 22
D8
D7
D6
D5
D0

Fig. L1

3-2. How to Connect ramp generator.

In order to generate a ramp signal that synchronize with the HD signal(Horizontal Drive) of the camera, the following ramp generator circuit has been designed.
Construct and connect it to process borad as shown in Fig. L2, L3.

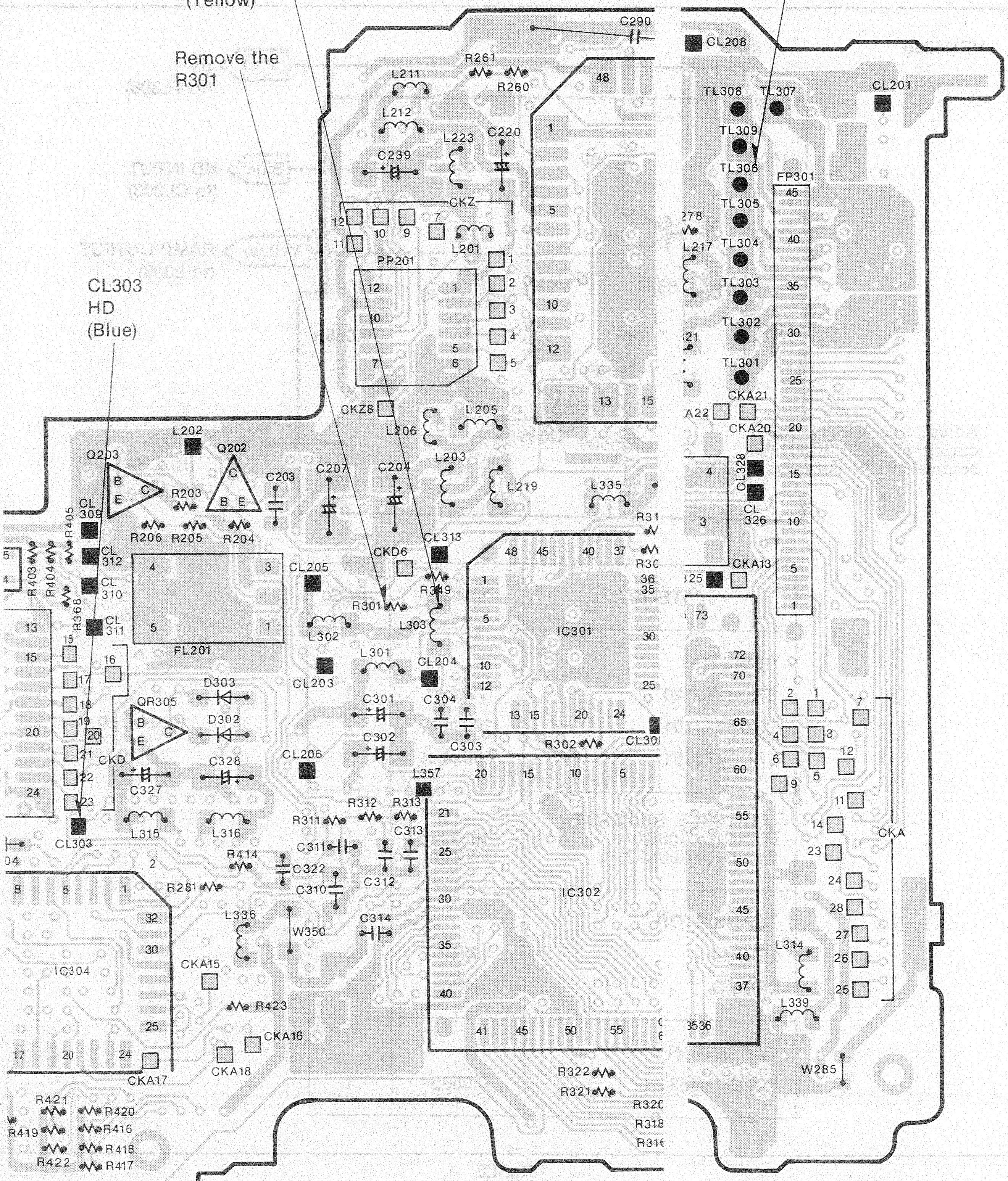

VFK0830
5V
Red
5V
(to TL306)
100
100
Blue
HD INPUT
(to CL303)
B644
B644
Yellow
RAMP OUTPUT
(to L303)
B644
INPUT
D639
10K
5V
5V
0.056µ
150
500
D639
12
Black
GND
(to CHASSIS)
Remove R301

Adjust this VR so that output of MSB (IC301-40) become 50-50 duty cycle pulse.

ITEMS	VALUE	PCS
RESISTOR		
ERDS2TJ120	**12ohm**	**1**
ERDS2TJ101	**100ohm**	**2**
ERDS2TJ151	**150ohm**	**1**
VARIABLE RESISTOR		
EVNDRAA00B14	10Kohm	1
EVNDRAA00B52	500ohm	1
TRANSISTOR		
2SB644	**PNP**	**3**
2SD639	**NPN**	**2**
CAPACITOR		
ECQB1H563JH	**0.056µ**	**1**

Fig. L2

CAMERA MAIN C.B.A.



L303
Connect the output
of Ramp-Generator
(Yellow)

Remove the
R301

CL303
HD
(Blue)

TL306
+5V
(Red)

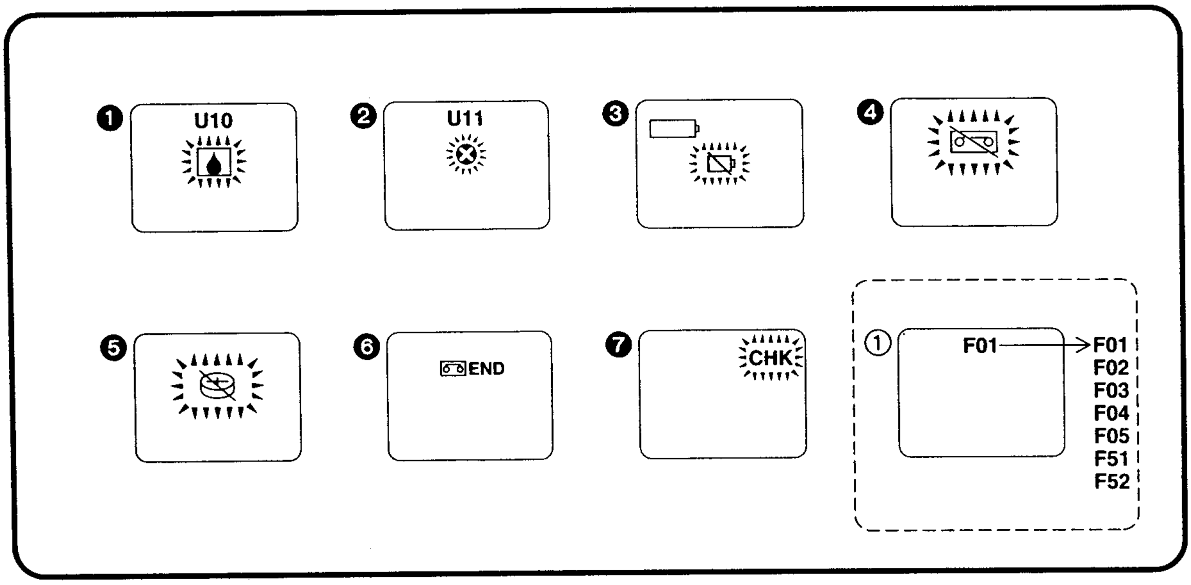
C290
CL208
R261
R260
L211
L212
L223
C220
C239
CKZ
PP201
L201
48
CL201
TL308
TL307
TL309
TL306
FP301
TL305
TL304
TL303
TL302
TL301
L217
CKA21
CKA20
CL328
CL326
CKA13
CKZ8
L205
L206
L202
Q203
Q202
C203
C207
C204
L203
L219
L335
R203
R206
R205
R204
R405
R403
R404
R368
CL309
CL312
CL310
CL311
FL201
CL205
CKD6
CL313
R349
R301
L303
L302
L301
CL204
IC301
R302
CL203
D303
QR305
D302
C301
C304
C302
C303
C328
C327
CKD
CL206
L357
R312
R313
R311
C313
L315
L316
CL303
R414
C311
C322
C310
C312
R281
IC302
L336
W350
C314
IC304
CKA15
R423
CKA16
CKA17
CKA18
CKA
L314
L339
W285
R322
R321
R320
R318
R316
R421
R420
R419
R416
R418
R422
R417

NOTE: MULTI LAYER C. B. A

(COMPONENT SIDE)

Fig. L3

SECTION 1
GENERAL DESCRIPTIONS



Indications in the Viewfinder

■ Warning/Alarm Indications

❶ Condensation

❷ Video Head Clogging

❸ Remaining Battery Power

When the last segment of this indication has disappeared, the "CAMERA" Indication Lamp flashes for a few seconds, and then the Movie Camera automatically switches off. Replace the Battery Pack with a fully charged one.

❹ Tape

When no video cassette is inserted, or when the tab of the inserted video cassette is broken out, this indication flashes. Insert a video cassette with intact tab.

❺ Built-in Lithium Battery

The built-in Lithium Battery is exhausted; charge it.

❻ End of the Tape

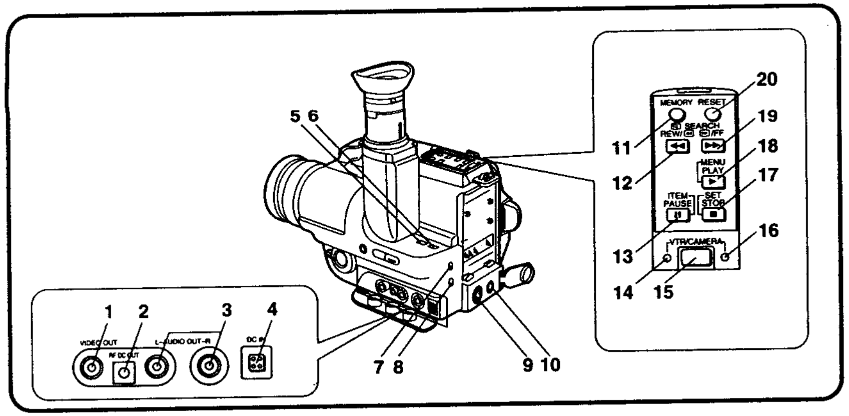
When the tape has reached its end, this indication lights. Insert a new Video Cassette.

❼ Anti-Ground-Shooting

① Error Code

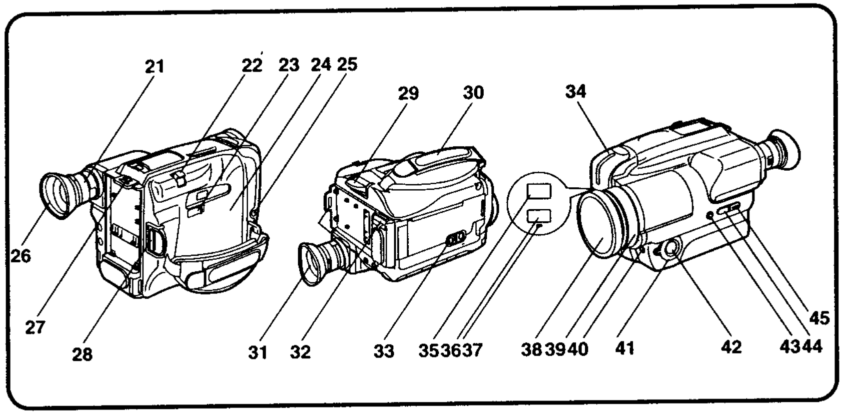
(Error codes are information for service personnel.)
If the "F" Indication appears in the Viewfinder, some malfunction has occurred. If the indicated error code is between "F01" and "F05", the Movie Camera will turn itself off automatically one minute after the "CAMERA" Lamp has started to flash. (If the indication is "F51" or "F52", the Movie Camera will not turn off automatically.)
If one of the Error Codes is displayed, write it down and tell it to the service personnel.

F01: Locked Take Up-Reel
F02: Locked Supply-Reel
F03: Locked Unloading Mechanism
F04: Locked Loading Mechanism
F05: Locked Cylinder
F51: Locked Focus Motor
F52: Locked Zoom Motor

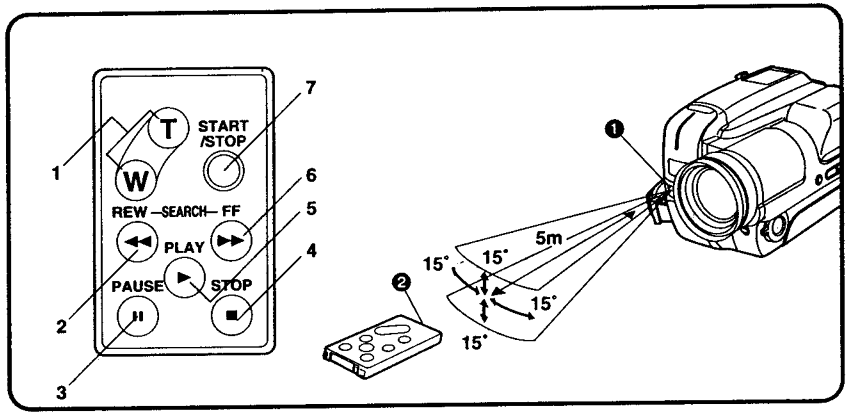

1
2
3
4
VIDEO OUT
RF DC OUT
L-AUDIO OUT-R
DC IN
5 6
7 8
9 10
11
12
13
14
15
16
17
18
19
20
MEMORY
RESET
SEARCH
REW/
/FF
MENU
PLAY
ITEM
PAUSE
SET
STOP
VTR/CAMERA

Controls and Components

1 [VIDEO OUT] Socket
2 [RF DC OUT] Socket
3 [AUDIO OUT L/R] Sockets
4 [DC IN] Socket
5 [DATE/TIME/SHIFT• ◀ TRACKING] Button
6 [DATE/TIME/SET•TRACKING ▶] Button
7 [POWER SAVE] Switch
8 [IMAGE STABILIZER] Switch
9 [S-VIDEO OUT] Socket
10 [NEW EDIT] Socket
11 [MEMORY] Button
12 [◀◀] Button
13 [❚❚] Button
14 "VTR" Indication Lamp
15 [VTR/CAMERA] Button
16 "CAMERA" Indication Lamp
17 [■] Button
18 [▶] Button
19 [▶▶] Button
20 [RESET] Button


21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45

21 Eyepiece Corrector Ring
22 [W•T] Zoom Lever
23 [EJECT ▲] Lever
24 Cassette Compartment Cover
25 [MIC] Socket
26 Eyecup
27 [BATTERY EJECT] Lever
28 Start/Stop Button
29 [POWER] Switch
30 Grip Belt
31 Viewfinder
32 Shoulder Strap Holders
33 Tripod Receptacle
34 Microphone
35 White Balance Sensor
36 Remote Control Sensor
37 Tally Lamp
38 Lens Cap
39 Focus Ring
40 [FOCUS] Button
41 [AE] Selector
42 [BACKLIGHT] Button
43 [W.B] Button
44 [FADE] Button
45 [DATE/TIME] Button


1
2
3
4
5
6
7
T
W
START
/STOP
REW —SEARCH— FF
PLAY
PAUSE
STOP
❶
❷
5m
15°
15°
15°
15°

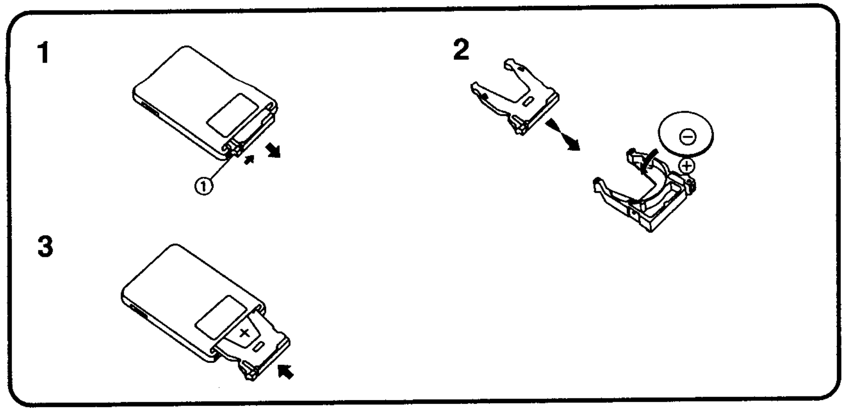
9 How to Use the Remote Controller

When you want to take part in the action that you are shooting, you can start and pause shooting as well as operate the zoom and other functions simply by pressing a button on the Remote Controller (supplied). Aim it at the Remote Control Receiver Window ❶ on the front of the Movie Camera and press the corresponding Button. For details about the functions of the buttons on the Remote Controller, refer to the corresponding pages (listed below). However, except on this page, the use of the Remote Controller is not explained in this manual.

Notes:

- Do not cover the transmitter window ❷ on the Remote Controller with your hand, etc.
- The Remote Controller may not operate correctly if it is used in direct sunlight, near fluorescent lamps or too close to the Movie Camera.
- When using the Remote Controller outdoors, operating range may become shorter than 5 metres.
- To prevent inadvertent operation of other infra-red remote-controlled units, this Movie Camera needs to receive each infra-red command 3 times.
  For this reason, there is a slight delay between pressing the [W] or [T] Button on the Remote Controller and the actual operation of the mechanical zoom function on the Movie Camera.

1 [W•T] Zoom Buttons
2 [◀◀] Button
3 [❚❚] Button
4 [■] Button
5 [▶] Button
6 [▶▶] Button
7 [START/STOP] Button



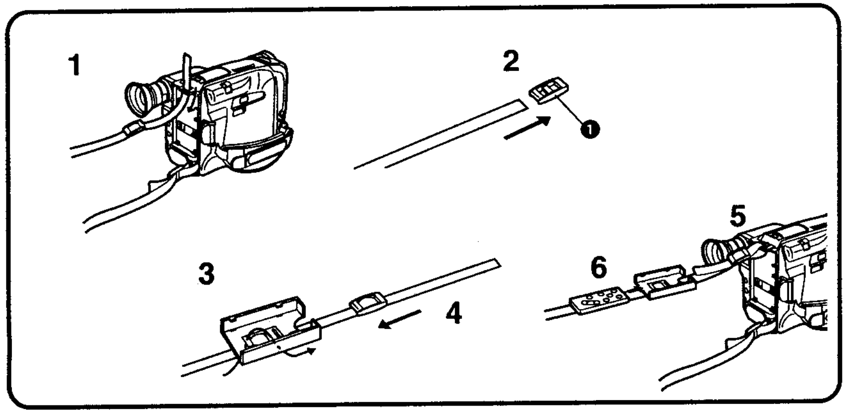
■ **How to Insert the Button-Type Battery**

1. **Pull out the Battery Holder while pushing the stopper ①.**
2. **Turn the Battery Holder upside down and insert the Battery with the (+) mark facing downward until it locks with a click. Confirm that the polarity is correctly aligned [(−) side must face upward toward the open side of the Battery Holder.]**
3. **Insert the Battery Holder into the Remote Controller.**

■ **Replacing the Button-Type Battery**

The life of the battery is about one year.
Replace the exhausted battery with a new CR2025 Battery.

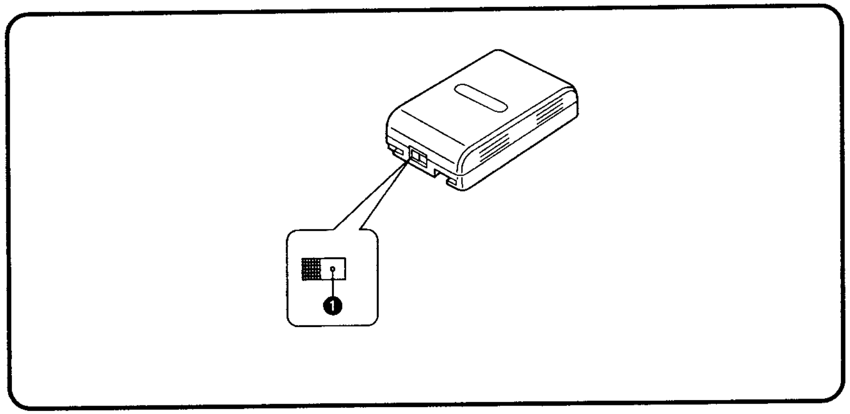
> CAUTION
>
> Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.



■ **How to Use the Remote Controller Holder**

(To keep the Remote Controller handy when you go out shooting)

1. **Remove one end of the Shoulder Strap from the Movie Camera.**
2. **Remove the Shoulder Strap Adjuster ❶.**
3. **Pull the Shoulder Strap in the direction of the arrow through the two slits on the back of the Remote Controller Holder.**
4. **Re-insert the Shoulder Strap Adjuster.**
5. **Re-attach the Shoulder Strap to the Movie Camera.**
6. **Insert the Remote Controller securely into the Holder.**



■ **Charging Time and Maximum Time for Continuous Shooting in the Manual Shooting Mode**

Battery Pack No.	Charging Time	Max. Continuous Shooting Time
Supplied	Approx. 60 min.	Approx. 35 min.
VW-VBS10E	Approx. 65 min.	Approx. 40 min.
VW-VBS20E	Approx. 130 min.	Approx. 80 min.
VW-VBH10E	Approx. 80 min.	Approx. 50 min.
VW-VBH20E	Approx. 160 min.	Approx. 100 min.

Note:

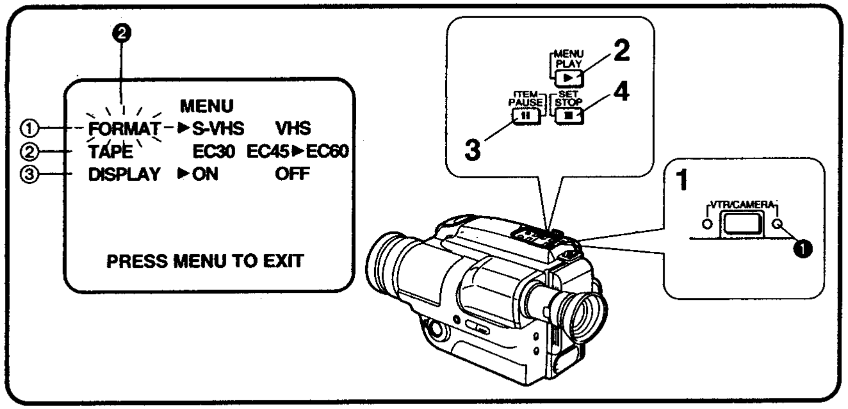
The use of the zoom and other functions increases the power consumption, so that the actual recording time per Battery Pack may actually be 30%–50% less than the max. continuous shooting time listed above.
When turning on the Movie Camera after attaching the Battery Pack, the Remaining Battery Power Indication initially indicates a fully charged Battery Pack regardless of its actual charging condition.

- Approx. 1 minute later, the indication changes and shows the approximate battery power actually remaining.

How to charge a Battery Pack if its operation time has become too short for practical use, or if it has been stored for a long time:
Continue charging for 24 hours even after the Charging Indication Lamp on the AC Adaptor goes out.
(If this does not result in an operation time sufficient for practical use, the service life of this Battery Pack has reached its end. Replace it with a new one.)

■ **How to Use the Charge Confirmation Marker**

Use this marker to distinguish between charged and discharged Battery Packs.
For example, slide the knob so that the dot ❶ is visible after the charging is completed.



4 How to Use the Menu Function

The Menu Function is used to select the items displayed in the Viewfinder as shown above.

Notes:

- While the Menu is displayed, shooting is not possible.
- The selections made on the "MENU" screen will be maintained even when the Movie Camera is turned off.
- When the Movie Camera is connected to a TV set, it is possible to display the "MENU" on the TV screen.

① **For selecting the VHS mode or Super-VHS mode**

② **For selecting the tape length of the video cassette being used**

③ **For turning the On-Screen Display function on or off**

1 Press to select the "CAMERA" mode.
- The "CAMERA" Indication Lamp ❶ lights up.

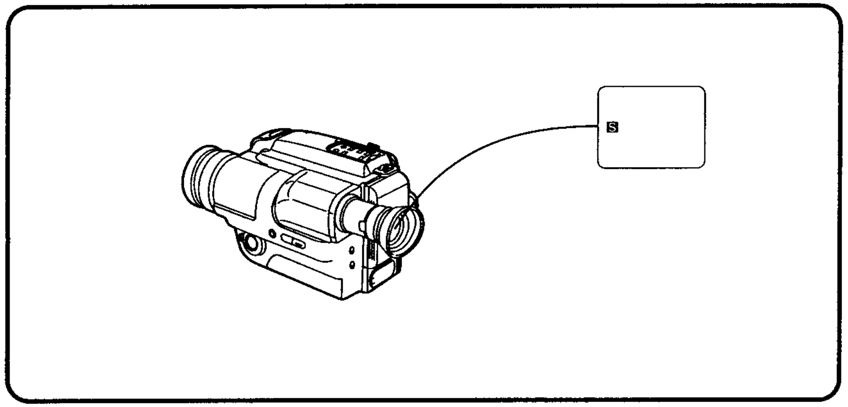
2 Press the [▶] Button.
- The "MENU" indication appears in the Viewfinder.

3 Press the [❚❚] Button repeatedly to select the desired item.
- The indication of the selected item ❷ flashes.

4 Press the [■] Button to select the desired mode.
- The selected mode is marked with the "▶" mark.

■ To Exit the Menu Function

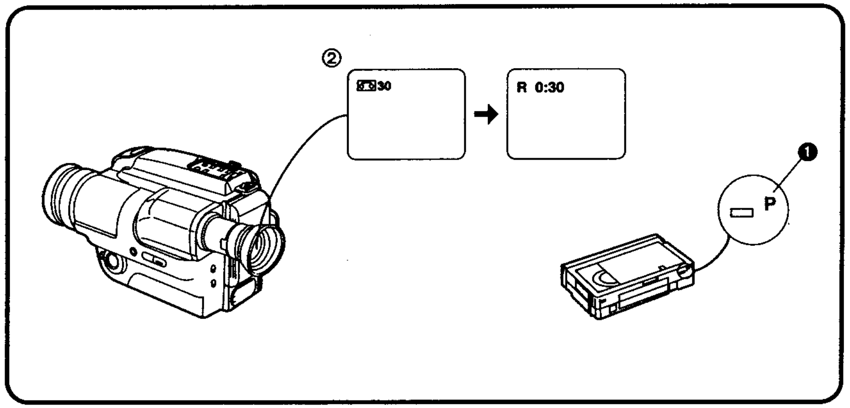
Press the [▶] Button again.



① **For selecting the VHS mode or Super-VHS mode**
When the Super-VHS mode is selected, the indication "S" is displayed in the Viewfinder. (However, when a normal VHS-C video cassette is inserted in the Movie Camera, the indication "S" does not appear, because recording in the Super-VHS mode is not possible on a normal VHS-C video cassette.)

Notes:

1. When using an Super-VHS-C video cassette that you want to play back on a standard VHS VTR (carrying the VHS logo), be sure to set the Movie Camera to the VHS mode. If an Super-VHS recording is played back on a standard VHS VTR, the picture will be totally distorted.
   However, by connecting this Movie Camera directly to a TV set, playback of Super-VHS recordings becomes possible.
   A standard VHS VTR that also carries the "SQPB" logo (Super-VHS-Quasi Playback), on the other hand, is capable of playing back Super-VHS recordings.
2. When playing back video cassettes on this Movie Camera, the format used for shooting will be detected and automatically selected for playback.

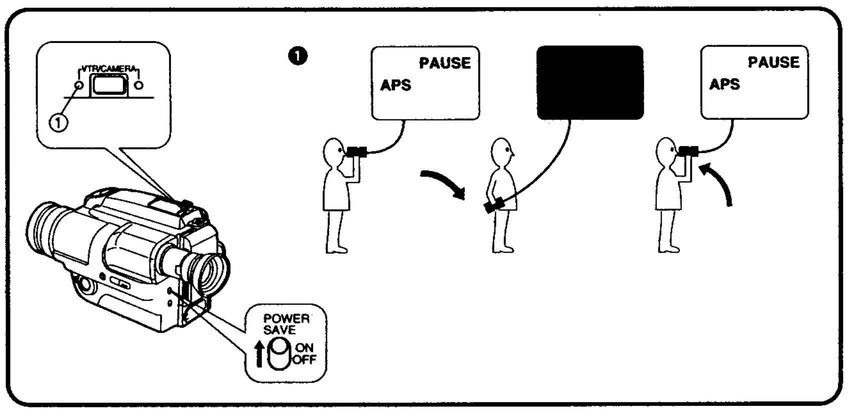


② **For selecting the tape length of the video cassette being used**
- Select the Tape Length Indication ("EC 30", "EC 45" or "EC 60") that matches the video cassette being used.
- During shooting and playback, the remaining tape time is displayed in minutes instead of the Tape Length Indication "▭ 30", "▭ 45" or "▭ 60".

Notes:

1. The Remaining Tape Time is not displayed until shooting or playback is started.
2. While the Movie Camera calculates the Remaining Tape Time, the "R" Indication flashes in the Viewfinder. "R" means Remaining.
3. When the Remaining Tape Time becomes less than 2 minutes, the Indication "R" and the Remaining Tape Time Indication start to flash.
4. When using a video cassette carrying the "P" mark ❶ or an Super-VHS-C video cassette, the Tape Counter Indication may not be very precise.

③ **For turning the On-Screen Display function on or off**
When set to "OFF", only the Warning/Alarm Indications and the Tape Running Indications will appear in the Viewfinder.



5 How to Use the POWER SAVE Switch

If you set the [POWER SAVE] Switch to "ON", the "APS" Indication is displayed in the Viewfinder, and the Auto Power Save Function and the Anti-Ground-Shooting Function prevent you from wasting battery power and from accidentally shooting the ground when you forget to stop shooting.
When you don't want to use these functions, set the [POWER SAVE] Switch to "OFF".

When changing locations between scenes or when not planning to shoot for a longer period of time, it is recommended to turn off the Movie Camera with the [POWER] Switch.

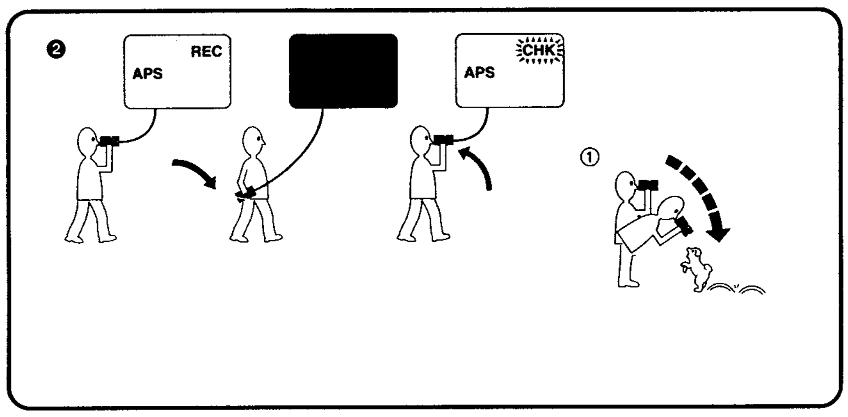
❶ **Auto Power Save Function**
(in the Shooting Pause Mode)
- The Battery Pack can be used longer for shooting.
- The Movie Camera automatically prevents shooting, even when the Start/Stop Button is pressed accidentally.

When you tilt the Movie Camera downwards by more than about 70° from the normal horizontal shooting position for more than a few seconds, the Viewfinder turns off and the "VTR" Indication Lamp ① flashes.

■ To Resume Shooting

When you return the Movie Camera to an approximately horizontal position, the Movie Camera is again in the Shooting Pause Mode and you can restart shooting by pressing the Start/Stop Button.

Notes:
- When the Auto Power Save Function becomes activated, the Auto Focus and the Zoom Motor do not work.
- When you restart shooting after this function became activated, the Auto White Balance Adjustment may not be precise for the first few seconds.



❷ **Anti-Ground-Shooting Function**
(in the Shooting Mode)
- The Battery Pack can be used longer for shooting.
- The Movie Camera automatically switches over to the Shooting Pause Mode to stop the unintentional shooting when you forget to press the Start/Stop Button at the end of a scene.

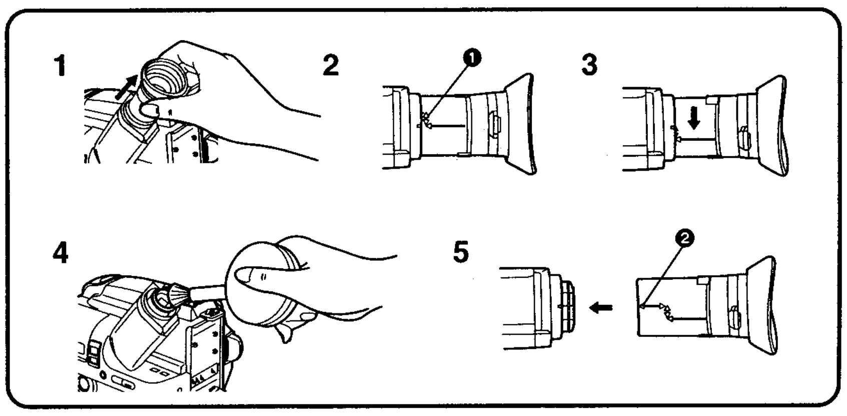
When you tilt the Movie Camera downwards by more than about 70° from the normal horizontal shooting position for more than a few seconds, and:
1) walk with the Movie Camera held in the hand or;
2) tilt the Movie Camera quickly downwards when not walking;

the Viewfinder turns off and the "VTR" Indication Lamp flashes.

■ To Resume Shooting

When you return the Movie Camera to an approximately horizontal position, the "CHK" (=check) Indication flashes in the Viewfinder. Since the shooting may have continued for several seconds, rewind the tape a little using the Camera Search Function (→ 34) to locate the exact end of the last intentionally shot scene, and then start shooting again.

Notes:
- The Anti-Ground-Shooting Function is designed so that it does not become activated when you tilt the Movie Camera slowly downwards during shooting, as shown above ①.
- This function is not intended to replace the manual stopping of shooting.
- When this function becomes activated, the Auto Focus and the Zoom Motor do not work.
- When you restart shooting after this function became activated, the Auto White Balance Adjustment may not be precise for the first few seconds.



How to Clean the Movie Camera

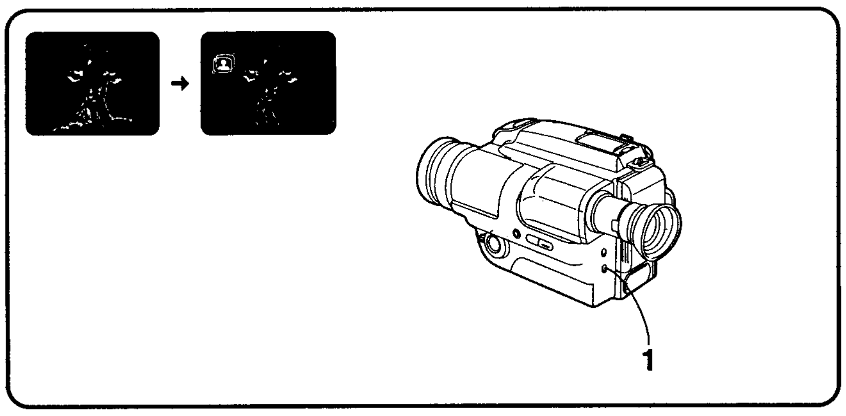
1 How to Clean the Viewfinder

If dust has entered the Viewfinder, clean it in the following way:

1 **Extend the Viewfinder.**
2 **Push the Viewfinder back in about 3 mm to the arrow ❶.**
3 **Turn the Viewfinder counterclockwise until it stops, and then pull it off.**
4 **Remove dust with a blower brush.**
5 **To re-attach the Viewfinder, align it as shown in the illustration, slip it on as far as the arrow ❷ and then turn it clockwise.**

2 How to Clean the Movie Camera Body and Lens

Notes:
1. Do not use benzine, thinner or other chemicals for cleaning, because they could change the colour and damage the surface of the camera body.
2. When using a chemically treated cloth for cleaning, carefully follow the instructions for its use.
   - Wipe the Movie Camera with a clean, dry cloth. Never use cleaning fluid or other chemicals.
   - Clean the lens only with a blower brush (used for photo cameras) or special lens cleaning tissue (used for glasses and cameras).



How to Use the Super Image Stabilizer Function

This function is especially practical for the following shooting situations:
1. Zooming in on a distant subject.
2. Shooting while walking.
3. Shooting from inside a moving car.

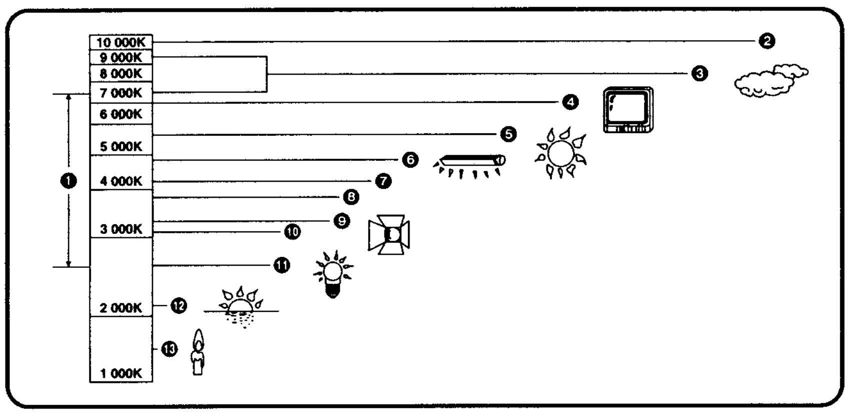
1 **Set the [IMAGE STABILIZER] Selector to "ON".**
- The Super Image Stabilizer Indication "▣" appears in the Viewfinder.

In the Following Shooting Conditions, the Picture Stabilizing Effect May Not Be Sufficient:
- A subject with horizontal or vertical stripes
- A flat subject
- A dark subject
  (In this case, the Super Image Stabilizer Indication "▣" flashes in the Viewfinder. Increase the amount of light.)
- A subject under many fluorescent lamps
- A fast-moving subject
- A subject with a flat background

■ To Cancel the Super Image Stabilizer Function

Set the [IMAGE STABILIZER] Selector to "OFF".

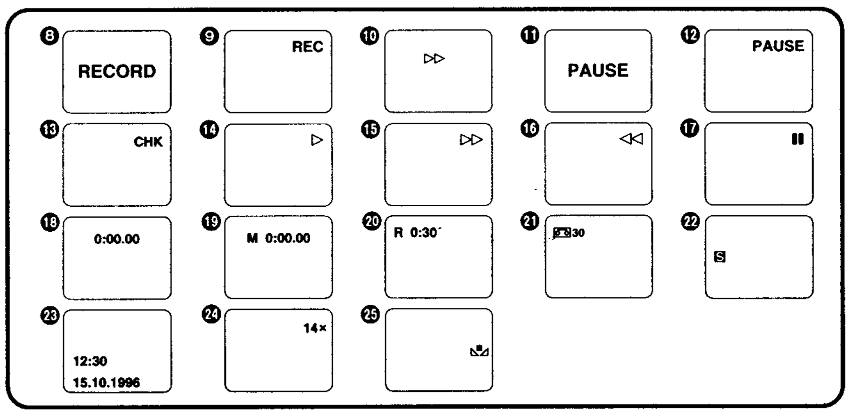
Notes:
1. When you use the Super Image Stabilizer Function, the shutter speed is automatically adjusted to 1/125 s.
2. Cancelling the Super Image Stabilizer Function also resets the shutter speed to 1/50 s. However, after selecting the Sports Mode or the Portrait Mode, cancelling the Super Image Stabilizer Function does not reset the shutter speed to 1/50 s.



Colour Temperature and White Balance

The colour temperature of the light source is measured in Kelvin (K). The higher the Kelvin value is, the more bluish is the light; the lower the value, the more reddish is the light. This is not directly related to the brightness. The table shows the relationship between natural light, artificial light and colour temperature.

❶ Control range of the Auto White Balance Function
❷ Blue sky
❸ Cloudy sky (rain)
❹ TV screen
❺ Sunlight
❻ White fluorescent lamp
❼ 2 hours after sunrise or before sunset
❽ 1 hour after sunrise or before sunset
❾ Halogen light bulb
❿ 30 minutes after sunrise or before sunset
⓫ Incandescent light bulb
⓬ Sunrise or sunset
⓭ Candlelight

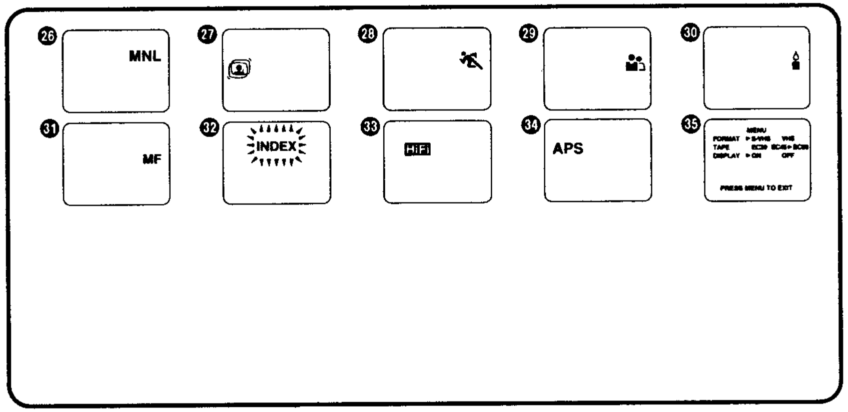


■ Shooting and Playback Indications

❽ **Shooting Mode (large indication)**
❾ **Shooting Mode (small indication)**
❿ **Tape Run Mode**
⓫ **Shooting Pause Mode (large indication)**
⓬ **Shooting Pause Mode (small indication)**
⓭ **Recording Review Mode**
⓮ **Playback/Camera Search Mode**
⓯ **Fast Forward/Cue Mode**
⓰ **Rewind/Review/Camera Search Mode**
⓱ **Still Playback Mode**
⓲ **Tape Counter**
⓳ **Tape Counter with activated Memory Function**
⓴ **Remaining Tape Time**
㉑ **Tape Length**
㉒ **S-VHS Format**
㉓ **Date and Time**
㉔ **Zoom Magnification**
㉕ **Manual White Balance Mode**

❷ Anti-Ground-Shooting Function
(in the Shooting Mode)

■ To Resume Shooting
When you return the Movie Camera to an approximately



㉖ Manual Shooting Mode

㉗ Super Image Stabilizer Mode

㉘ Sports Mode

㉙ Portrait Mode

㉚ Low Light Mode

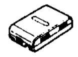
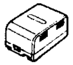
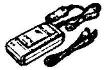
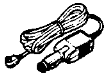
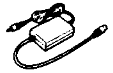
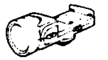
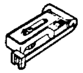
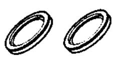
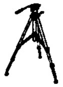
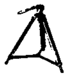
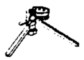
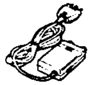
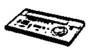
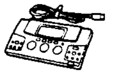
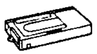
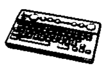
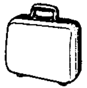
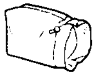
㉛ Manual Focus Mode

㉜ Index

㉝ Hi-Fi Mode

㉞ Power Save Mode

㉟ Menu Mode

1. VW-VBS10E VW-VBH10E 	2. VW-VBS20E VW-VBH20E 	3. VW-KBC2E 	4. VW-ACC2E 	5. VW-K10E 	6. VZ-LDCS13E 
7. VW-SK9E 	8. VW-LF43E 	9. VZ-CT55E 	10.VZ-CT75E 	11.VZ-CTT1E 	12.VW-RF7E 
13.VW-EC310E 	14.VW-EC1E 	15.VW-TCA7E 	16.VW-VT1E 	17.VW-SHCS5E 	18.VW-SCS9E 

Optional Accessories

1. VW-VBS10E (Ni-Cd Battery Pack)
   VW-VBH10E (Ni-MH Battery Pack)
2. VW-VBS20E (Ni-Cd Battery Pack)
   VW-VBH20E (Ni-MH Battery Pack)
3. Car Battery Charger
4. Car Battery Cord
5. 5-pin Synchro Cord
6. Video DC Light
7. Shoe Adaptor
8. Filter Kit
9. Standard Tripod
10. Deluxe Tripod
11. Table Tripod
12. RF Adaptor
13. Editing Controller
14. Editing Controller
15. Cassette Adaptor
16. Video Titler
17. System Case
18. Soft Cover

Notes:
- Some accessories are not available in some countries.
- To mount the Video DC Light on the Movie Camera, the Shoe Adaptor (optional) is necessary.
- When you shoot at the maximum wide-angle setting and use the Super Image Stabilizer Function while an ND Filter is attached to the Lens, the four corners of the picture may become black.

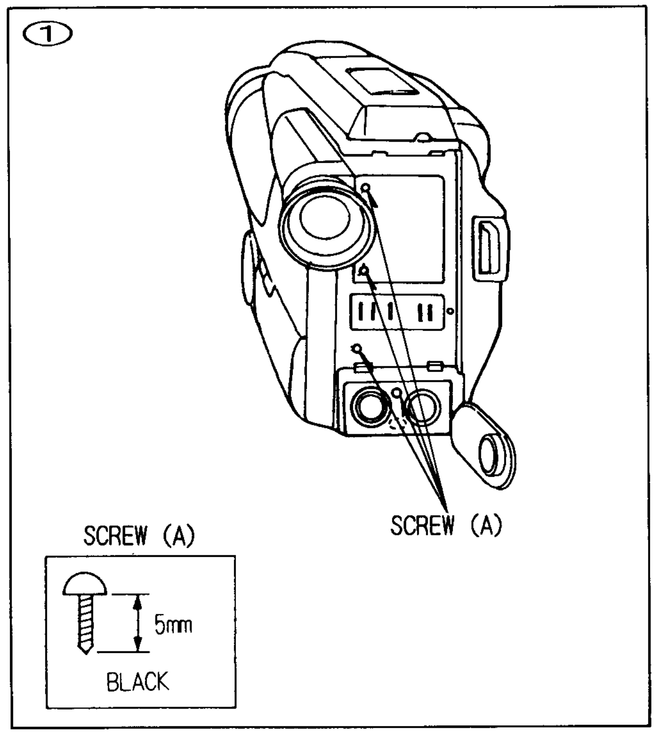
SECTION 2
ADJUSTMENT PROCEDURES

2-1. DISASSEMBLY PROCEDURES

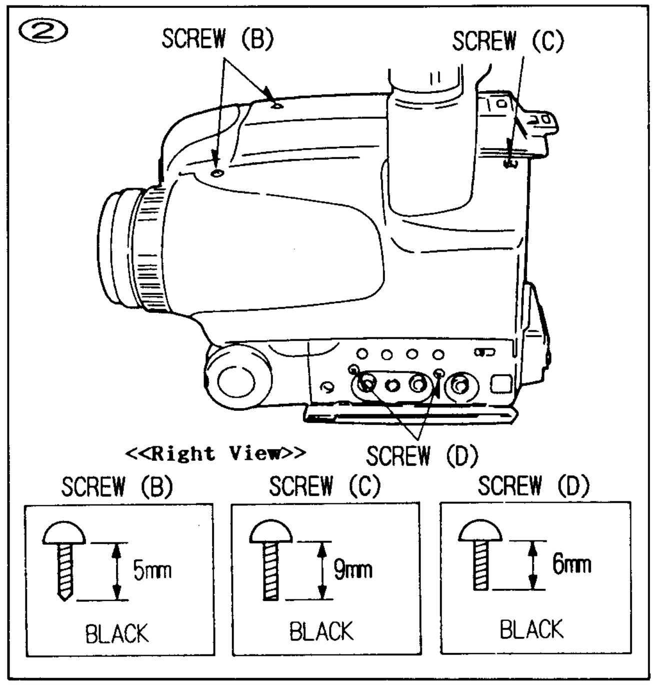
Flow-Chart for Disassembly Procedure

NBR	ITEM/PART	Fig.	Removal(SCREW)
【1】	Side Case (L).	①	4-SCREW (AX4)
		②	5-SCREW(B/C/D)
		③	7-SCREW(E/F/G/H) Remove the Jack-Cover.
		④	1-SCREW (I)
		⑤	1-SCREW (J)
		⑥	Slightly open the side case (L). Disconnect(Connector A/B).
【2】	Front & Side Case (R).	⑦	4-SCREW(K/L)
		⑧	Disconnect(Connector C/D) Unlock---2 Locking Tabs Slide the Front Case.
		⑨	Disconnect(Connector E) Slide the Side case
【3】	Camera unit	⑩	Disconnect(Connector F) 2-SCREW (M) Slide the Camera Unit little bit and unlock locking boss and then lift up the camera unit.
【4】	Main C.B.A	⑪	5-SCREW(N/O/P/Q/R) Disconnect(Connector G/H)
		⑫	Disconnect(Connector I/J/K/L/M/N O/P)
【5】	POWER C.B.A	⑬	2-SCREW (S)
【6】	Camera C.B.A	⑭	Disconnect(Connector R)
		⑮	Disconnect(Connector S) 2 SCREW(T)

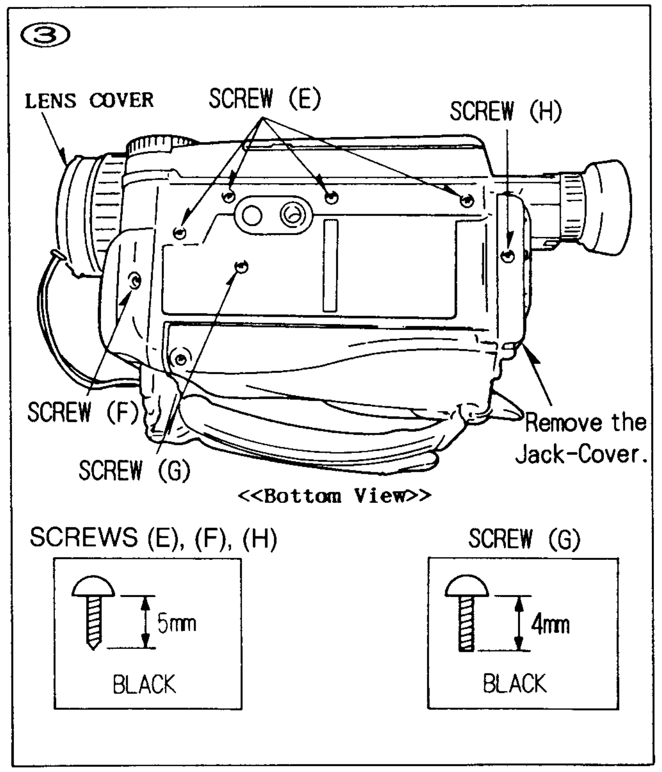
①


SCREW (A)
SCREW (A)
5mm
BLACK

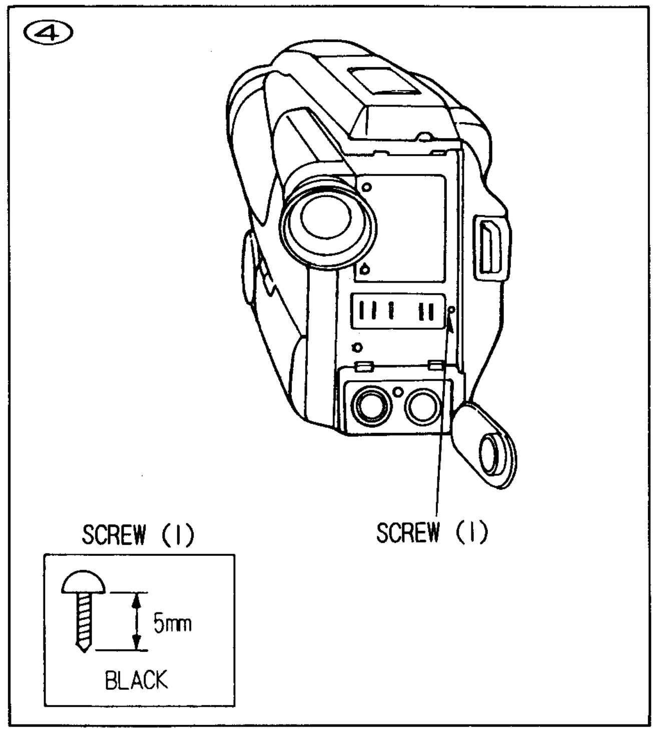
②


SCREW (B)
SCREW (C)
<<Right View>>
SCREW (D)
SCREW (B)
5mm
BLACK
SCREW (C)
9mm
BLACK
SCREW (D)
6mm
BLACK

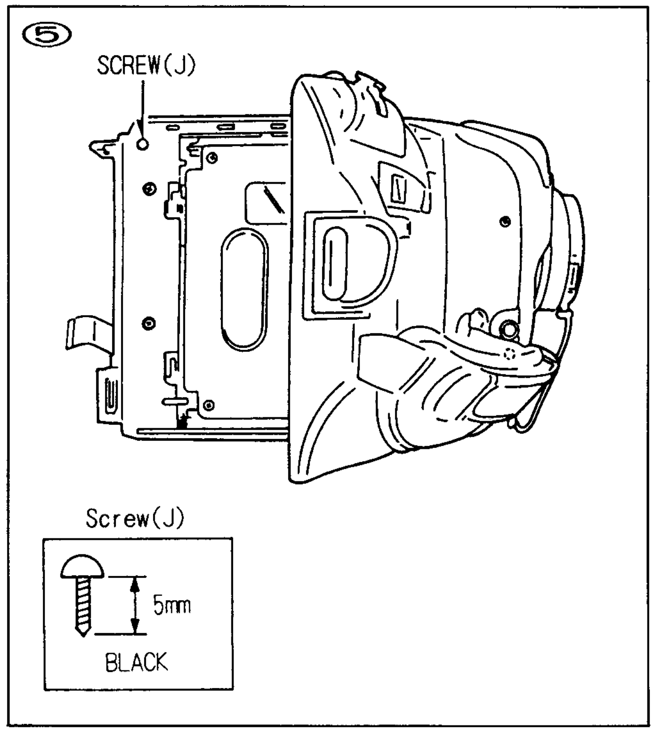
③


LENS COVER
SCREW (E)
SCREW (H)
SCREW (F)
SCREW (G)
Remove the Jack-Cover.
<<Bottom View>>
SCREWS (E), (F), (H)
5mm
BLACK
SCREW (G)
4mm
BLACK

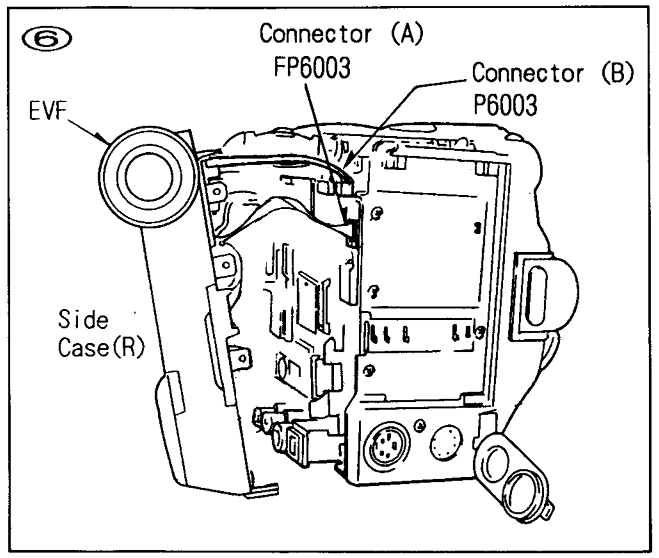
④


SCREW (I)
SCREW (I)
5mm
BLACK

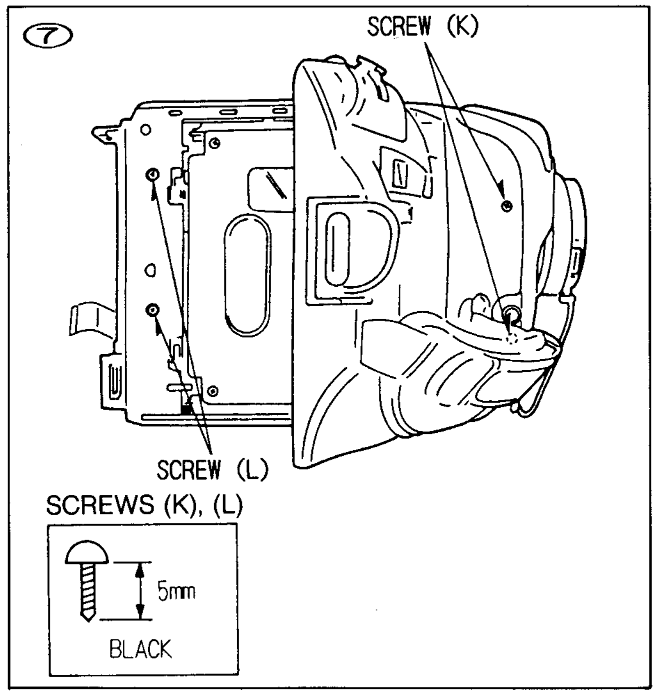
⑤


SCREW(J)
Screw(J)
5mm
BLACK

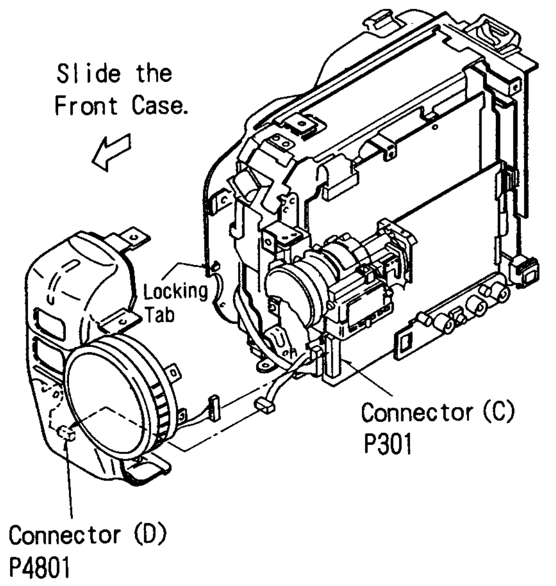
⑥


Connector (A)
FP6003
Connector (B)
P6003
EVF
Side Case(R)

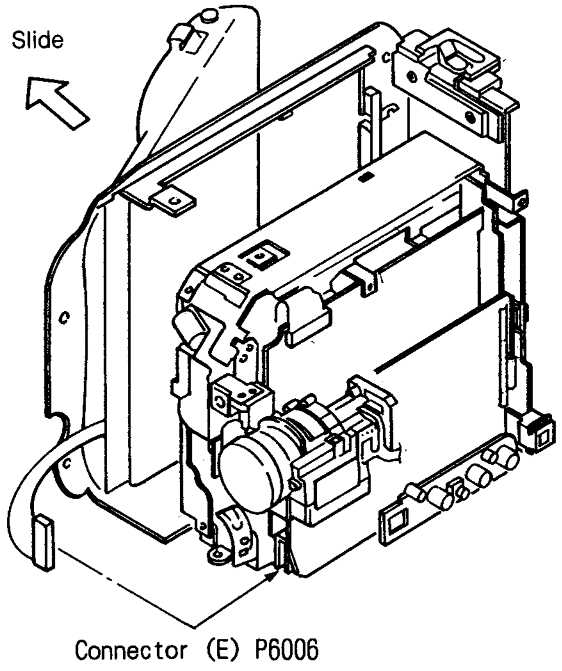
⑦


SCREW (K)
SCREW (L)
SCREWS (K), (L)
5mm
BLACK

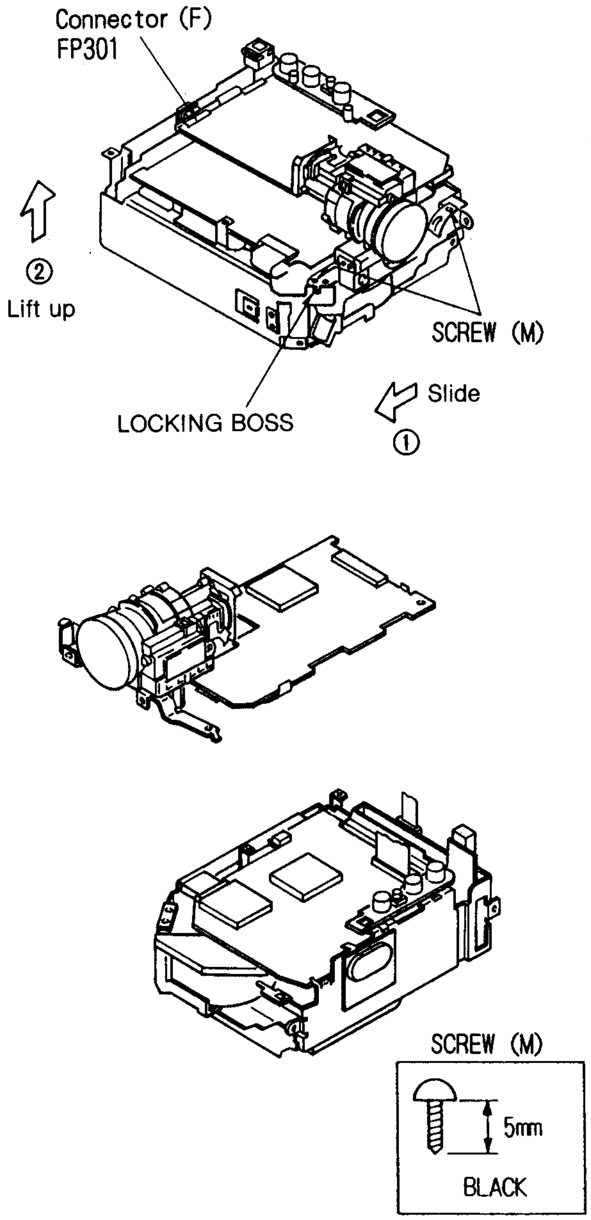
⑧

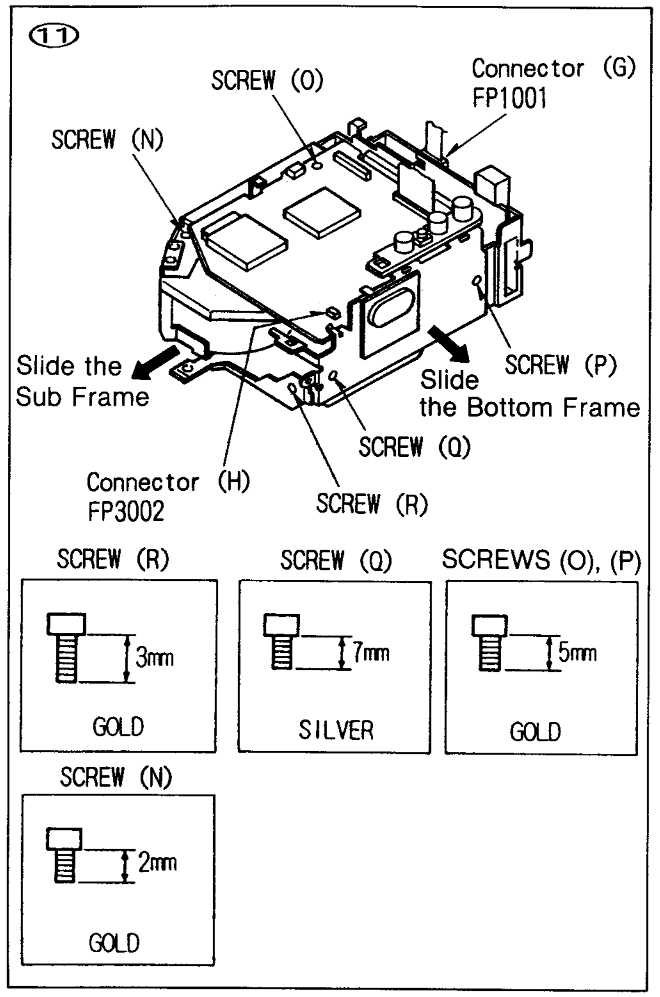

Slide the
Front Case.
Locking
Tab
Connector (C)
P301
Connector (D)
P4801

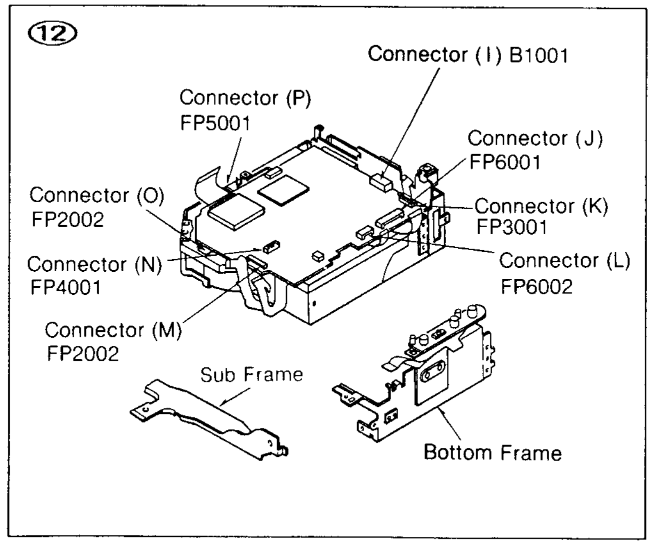
⑨

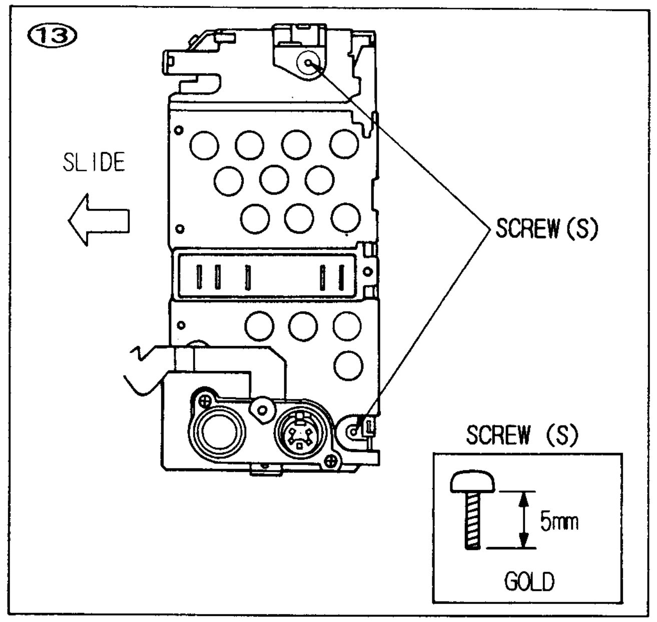

Slide
Connector (E) P6006

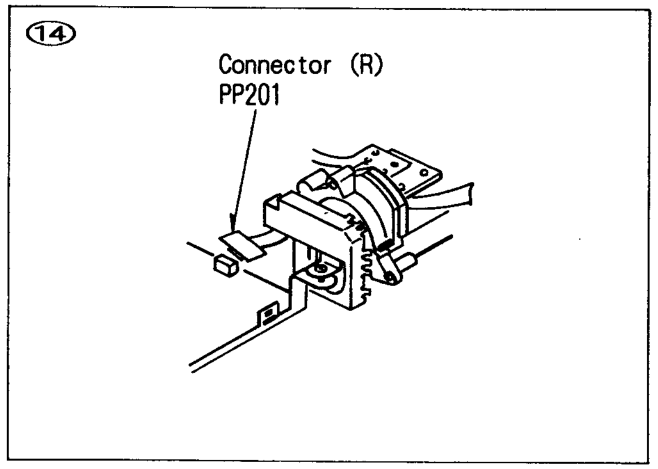
⑩

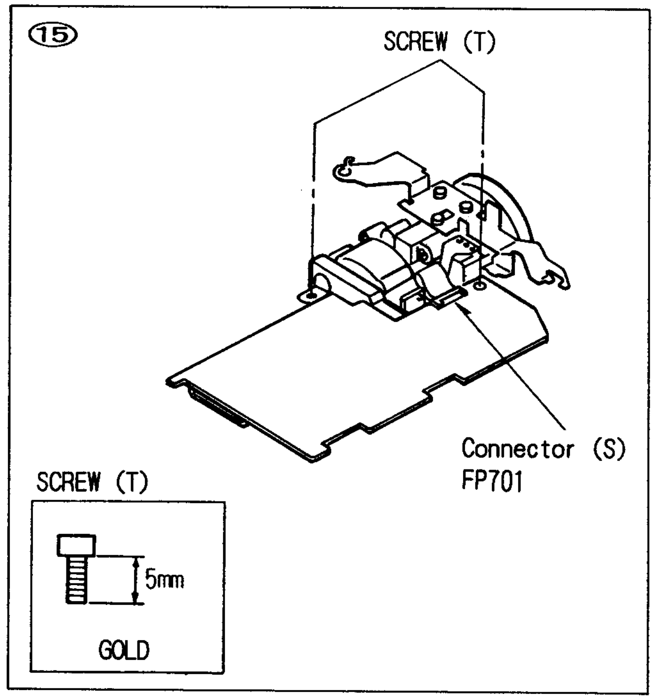

Connector (F)
FP301
②
Lift up
SCREW (M)
Slide
①
LOCKING BOSS
SCREW (M)
5mm
BLACK


⑪
SCREW (O)
Connector (G)
FP1001
SCREW (N)
Slide the Sub Frame
Slide the Bottom Frame
SCREW (P)
SCREW (Q)
Connector (H)
FP3002
SCREW (R)
SCREW (R)
3mm
GOLD
SCREW (Q)
7mm
SILVER
SCREWS (O), (P)
5mm
GOLD
SCREW (N)
2mm
GOLD


⑫
Connector (I) B1001
Connector (P)
FP5001
Connector (J)
FP6001
Connector (O)
FP2002
Connector (K)
FP3001
Connector (N)
FP4001
Connector (L)
FP6002
Connector (M)
FP2002
Sub Frame
Bottom Frame


⑬
SLIDE
SCREW (S)
SCREW (S)
5mm
GOLD


⑭
Connector (R)
PP201


⑮
SCREW (T)
Connector (S)
FP701
SCREW (T)
5mm
GOLD

2-2. DISASSEMBLY PROCEDURES OF LENS UNIT

The following flowchart describes order or steps for removing the Lens Units and certain printed circuit boards in order to make access to the item needing service.

To reassemble the unit follow the steps in reverse order.

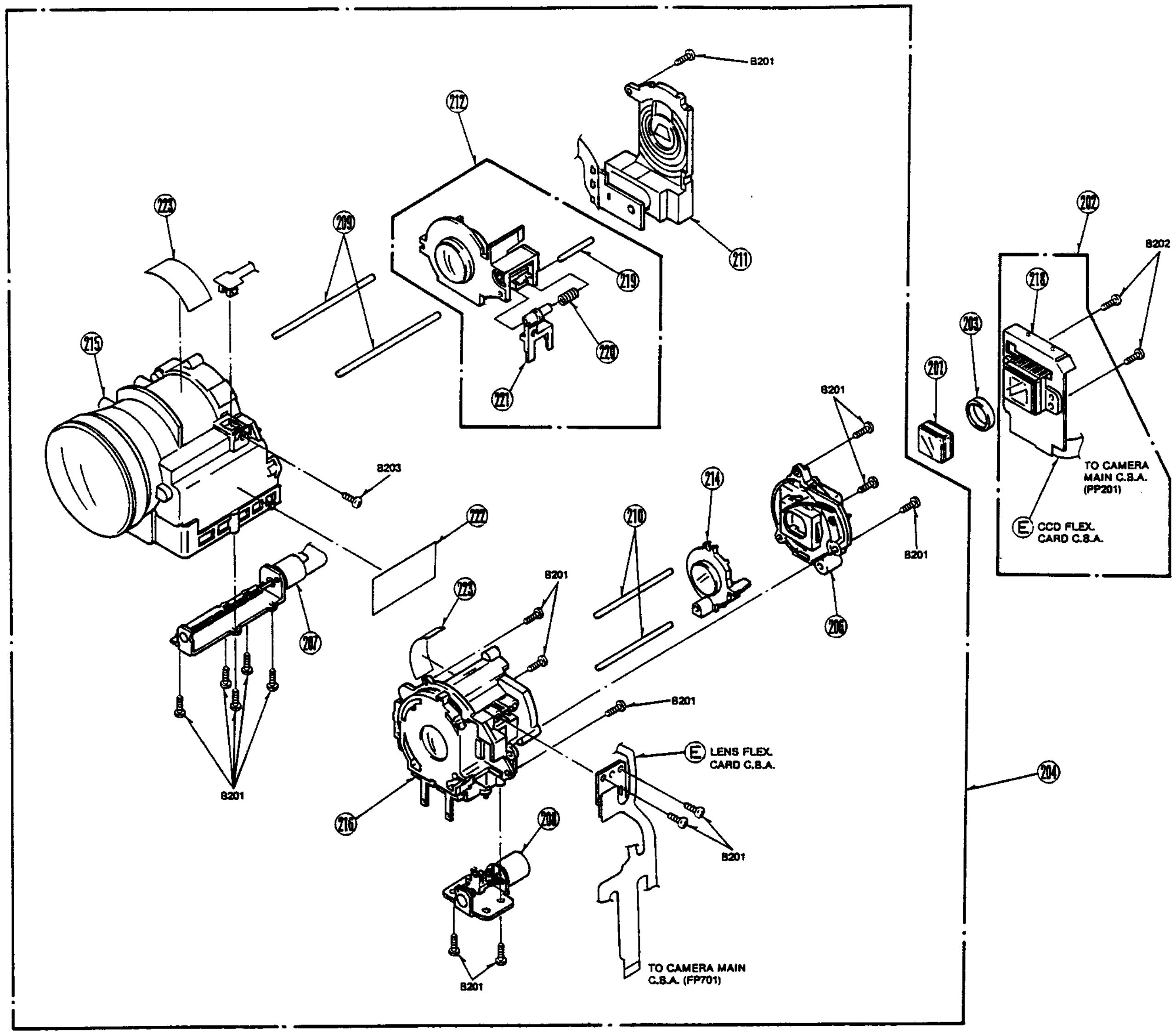
1. CCD Unit	Ref-No. 202
▽	
2. CCD Cushion & Crystal Filter	Ref-No. 203/201
▽	
3. Focus Motor Unit	Ref-No. 208
▽	
4. Zoom Motor Unit	Ref-No. 207
▽	
5. Filter Mount Plate	Ref-No. 206
▽	
6. 4th Moving Frame Unit	Ref-No. 214
▽	
7. Focus Guide Pole	Ref-No. 210
▽	
8. 3rd Lens Frame Unit	Ref-No. 216
▽	
9. Iris Unit	Ref-No. 211
▽	
10. 2nd Moving Frame Unit	Ref-No. 212
▽	
11. Focus Guide Pole	Ref-No. 209
▽	

Note: Each Ref-numbers are equivalant to number on Fig L2 and Parts-List.

Fig. L1

S

Slid
Sub


B201
212
211
223
209
219
220
221
202
B202
218
203
201
TO CAMERA MAIN C.B.A. (PP201)
E CCD FLEX. CARD C.B.A.
215
B203
222
214
210
206
B201
207
213
216
B201
E LENS FLEX. CARD C.B.A.
208
TO CAMERA MAIN C.B.A. (FP701)
204

Cor
FP

Cor
FP

C
F

Fig. L2

2-3. ELECTRICAL ADJUSTMENT PROCEDURES

TEST EQUIPMENT AND TOOLS

The following equipment are required for adjustment of the VTR & E.V.F section of VHS-Movie.

	Item & Spec/Range		Item & Spec/Range
1	Extension Cables VFKW0F0001/VFKW0F0143/VFKW0F0136 (FP301 ~FP1001) VFKW0F0001/VFKW0F0145/VFKW0F0138 (FP6003~CAM.OP) VFKW0F0001/VFKW0F0147/VFKW0T0001 (FP301 ~FP3003) VFK0498 (P4001 ~MIC)	5	Dual Trace Oscilloscop Voltage Range : 0.01~50V Frequency Range: 0.0 ~50MHz
		6	Probe for Oscilloscop Voltage Range : 0.01~50V (10:1 or 1:1Probe)
2	Video Sweep Generator Frequency Range: 0.0 ~50MHz	7	VHS-C Movie Alighment Tape(VFM8018HQPP)
3	Colour Monitor TV	8	S-VHS-C Blank Tape
4	Plastic Tip Driver	9	Colour Bar Chart/Gray Scale Chart/Black & White Chart

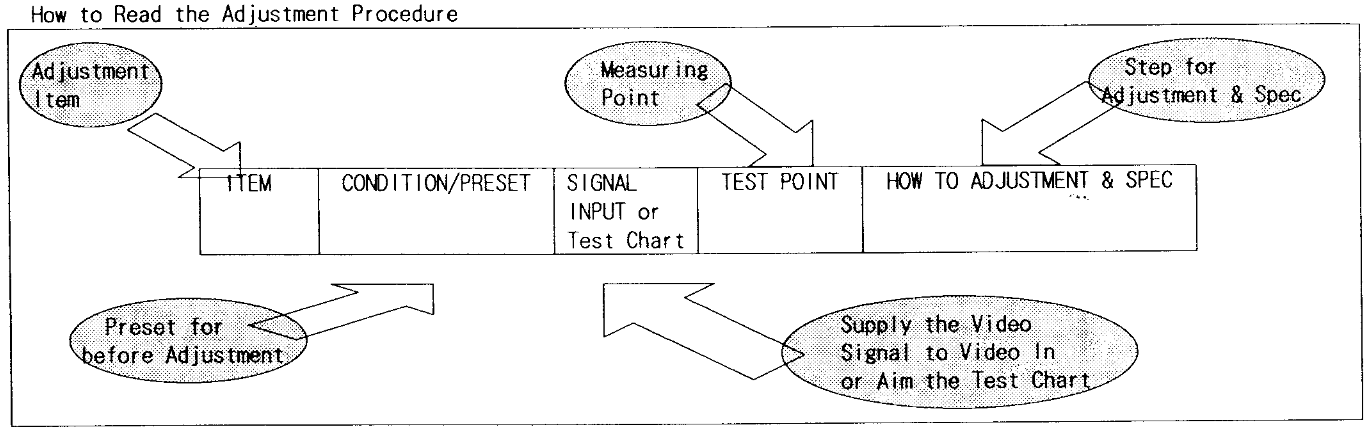
PREPARATION:

(A). Remove the Casing panels. ⇨Please Refer to Disassembly procedure.

(B). Connect the Camera Unit, VCR Unit, Side Case (R) and Front Case. ⇨Please Refer to Fig. E1

(C). The camera unit must be completely aligned befor adjustment for VCR unit/viewfinder unit.

How to Read the Adjustment Procedure


Adjustment Item
Measuring Point
Step for Adjustment & Spec
ITEM
CONDITION/PRESET
SIGNAL INPUT or Test Chart
TEST POINT
HOW TO ADJUSTMENT & SPEC
Preset for before Adjustment
Supply the Video Signal to Video In or Aim the Test Chart

Preparation for Electrical Adjustment

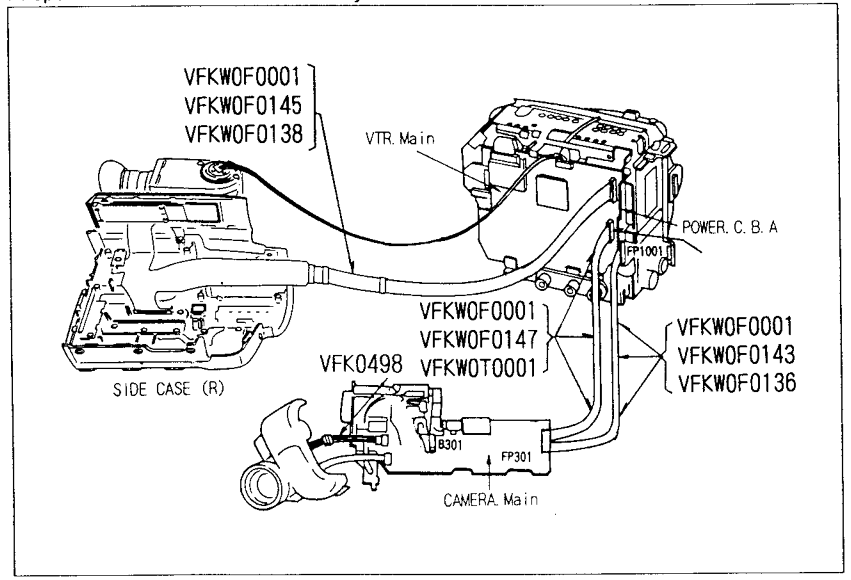


Fig. E1

Note: Triggering the Oscilloscope
To trigger the Oscilloscope, following test point is used.

H. Rate: Video Output
V. Rate: PP6004-6(Head Switching Signal)

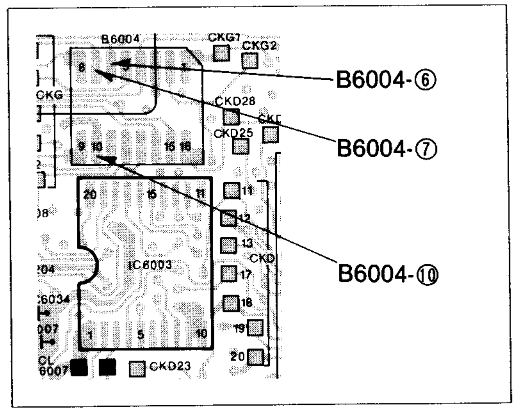


Fig. E2

Note: Following Adjustment requied EVR fixture.
So, adhustment procedure described on Service manual VMD9506M128.

1. Croma/Luminance Recording Current.
2. FM Audio Recording Current.
3. PG Shifter Adjustment.

2-3-1. ELECTRICAL ADJUSTMENT FOR VTR SECTION

ITEM	CONDITION/PRESET	SIGNAL INPUT or Test Chart	TEST POINT	HOW TO ADJUSTMENT & SPEC
1. S-VHS WHITE PEAK	1. Connect the jumper wire between B6004-⑩ and B6004-⑥. (Please refer to Fig. E2) 2. Supply Colour-Bar signal to B6004-⑦. 3. Set the unit S-VHS mode. 4. Turn the unit Recording Mode with S-VHS Blank-Tape. 5. Connect the Oscilloscope to the IC3001-51.	Colour Bar Siganl	IC3001-51	1. Turn the VR3004 so that signal level at IC3001-51 becoeme 400±10mVp-p.
2. BURST LEVEL	1. IRIS close 2. Connect the Oscilloscope to Vide Out. .	————	Video-out	1. Turn the VR5503 so that Burst level becoeme 300±10mVp-p. (75 Ω Termonated) (Please refer to Fig. E3)
3. VCO	1. Connect the Frequency counter to TL5503. 2. Turn the unit S-VHS mode. 3. Connect the jumper wire between TL5504 & GND. 4. Connect the jumper wire between TL5505 & TL5502.	————	TL5503	1. Turn the VR5502 so that frequency at TL5503 become 627±10KHz.
4. S-VHS PLAYBACK LEVEL	1. Connect the jumper wire between B6004-⑩ and B6004-⑥. (Please refer to Fig. E2) 2. Supply Colour-Bar signal to B6004-⑦. 3. Set the unit S-VHS mode. 4. Turn the unit Recording Mode with S-VHS Blank-Tape. 5. Connect the Oscilloscope to the VIdeo-Out. 6. Playback the recorded signal.	Colour Bar Siganl	Video-out	1. Adjust the VR3006 so that the signal level at Video-out become 1.0 ±10mVp-p. (75 Ω Termonated) (Please refer to Fig. E4)
5. YNR	1. Playback the alignment tape (VFM8180HUPF) 2. Connect Oscilloscope to TL3004.	————	TL3004	1. Turn VR3005 so that signal level is minimized. (Please refer to Fig. E5)
6. COS EQ	1. Connect the jumper wire between B6004-⑩ and B6004-⑥. (Please refer to Fig. E2) 2. Set the Sweep generator as shown in Fig. E6. 3. Supply Sweep signal to B6004- ⑦ and the record the signal for few minute 4. Play back the recorded signal. 5. Connect the Video Out to Oscilloscope.	Sweep signal to B6004- ⑩	Video Out	1. Turn VR3007 so that signal level at the 4MHz is within spec as shown in Fig. E7.

2-3-2. ELECTRICAL ADJUSTMENT FOR AUDIO SECTION

ITEM	CONDITION/PRESET	SIGNAL INPUT or Test Chart	TEST POINT	HOW TO ADJUSTMENT & SPEC
1. FM CARRIER	1. Disconnect the P4001. 2. Connect the Frequency counter to TL4515 & TL4516.	————	L-CH = TL4515 R-CH = TL4516	L-CH = 1.4M ±10KHz (Adjusted By VR4501) R-CH = 1.8M ±10KHz (Adjusted By VR4509)

2-3-3. ELECTRICAL ADJUSTMENT FOR EVF SECTION

The following adjustment are Electric Viewfinder.

Note: (A). Connect the Viewfinder to unit.
(B). The camera unit must be completely aligned befor viewfinder adjustment.

ITEM	CONDITION/PRESET	SIGNAL INPUT or Test Chart	TEST POINT	HOW TO ADJUSTMENT & SPEC
1. CENTREING	Aim the camera at Registration chart.	Registration Chart	E.V.F on Screen	Adjust the deflection-yoke centreing magnets turning so that picture on E.V.F is centred. Please Refer to Fig. F1.
2. FOCUS	Aim the camera at Ball chart.	Ball Chart	E.V.F on Screen	Adjust the VR803 for best resolution in Viewfinder. Note: After performed this adjustment, confirm "A" part of VR803. "A" part is outside of 100 degree. Please Refer to Fig. F2.
3. VERTICAL SIZE	Aim the camera at Gray-Scale chart	Gray Scale Chart	E.V.F & TV on Screen	Adjust the VR801 for best vertical size. (Picture does not roll as shown in Fig. F3.)
4. BRIGHTNESS	Aim the camera at Gray-Scale chart	Gray Scale Chart	E.V.F & TV on Screen	Adjust the VR804 so that brightness in viewfinder is same as monitor TV.

Fig For ELECTRICAL ADJUSTMENT OF VTR SECTION

Burst Level

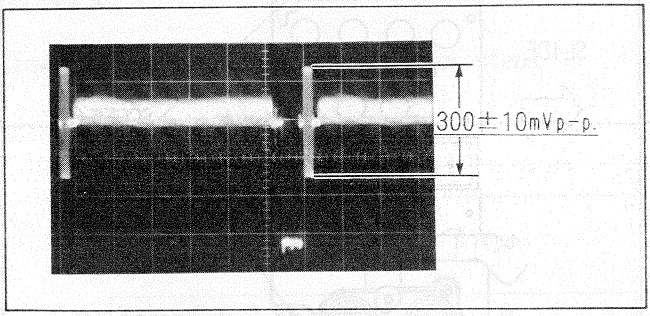


Fig. E3

S-VHS PLAYBACK LEVEL

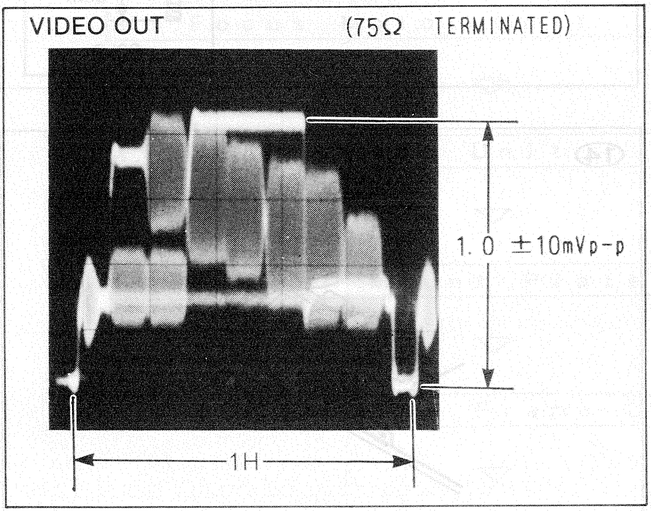


Fig. E4

YNR

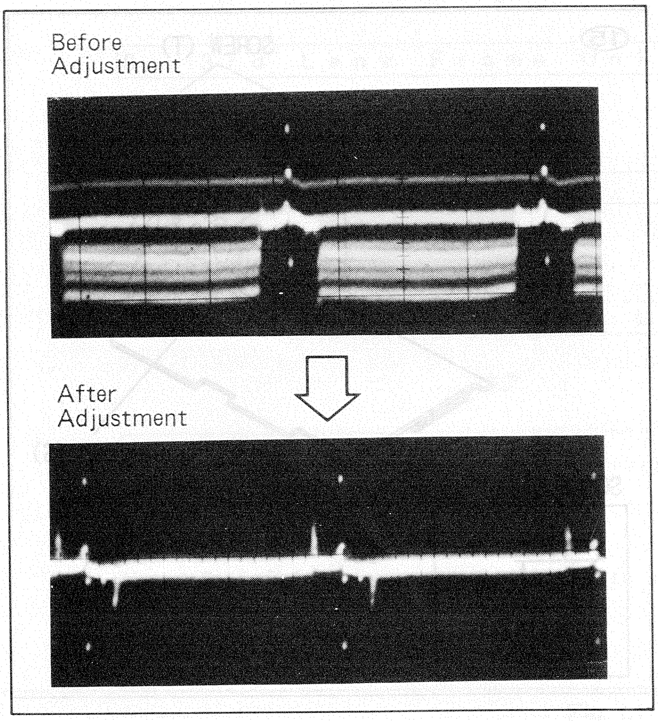
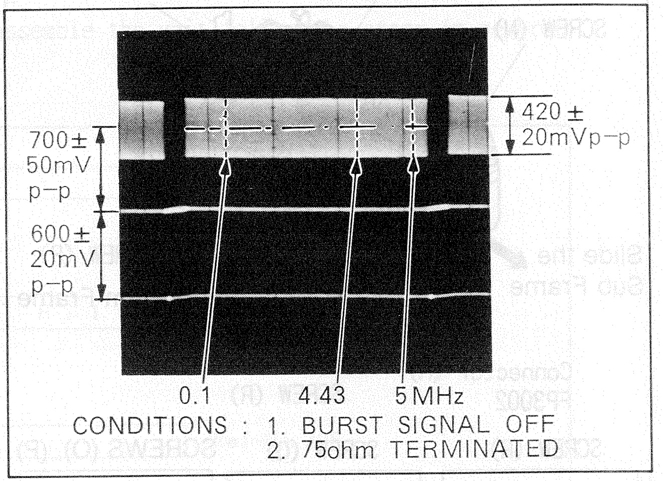


Fig. E5

Set up for Sweep Generator



CONDITIONS : 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. E6

COS EQ Adjustment

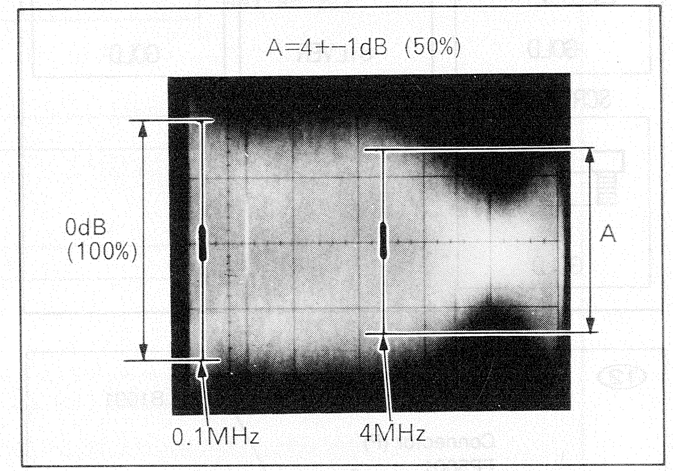


Fig. E7

Adjustment for Centreing

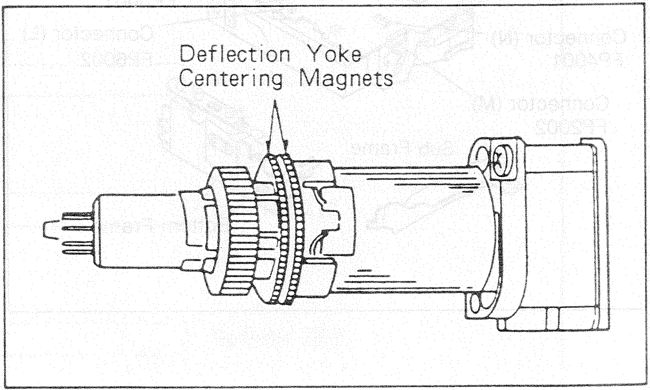

Deflection Yoke
Centering Magnets

Fig. F1

Adjustment for Focus

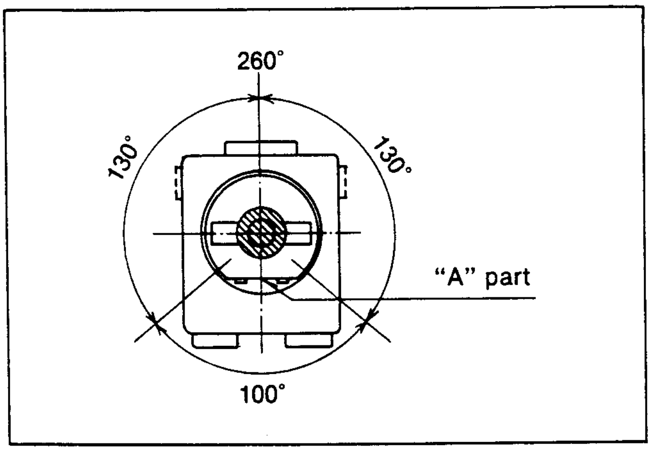

260°
130°
130°
"A" part
100°

Fig. F2

Adjustment for Vertical Size

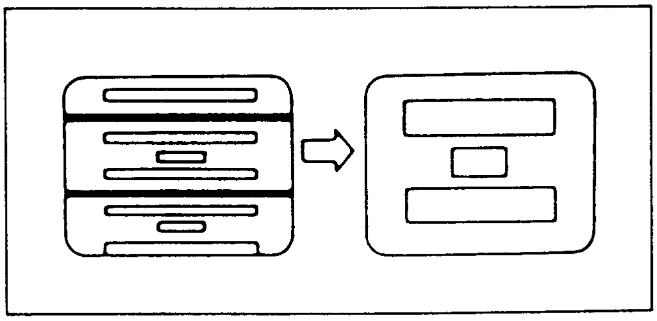
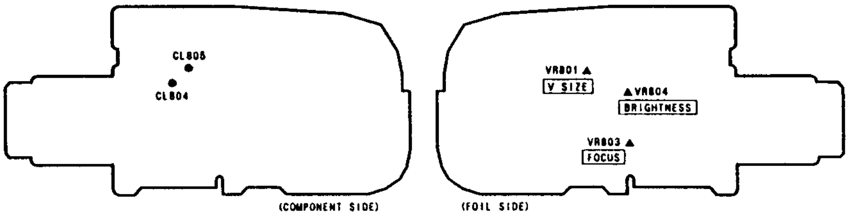


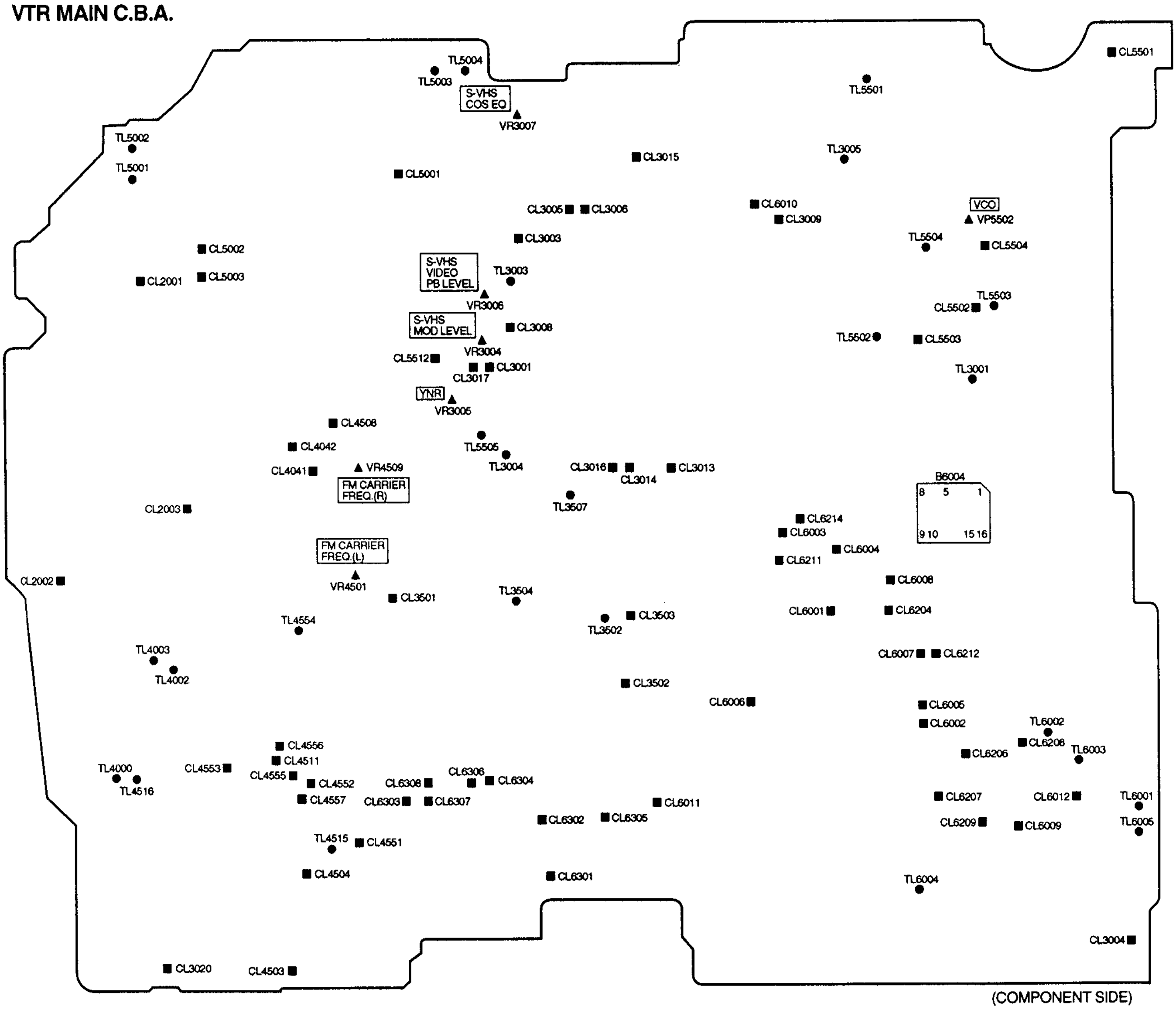
Fig. F3

LOCATION OF TEST POINTS & CONTROLS

E.V.F. C.B.A.


CL805
CL804
VR801
V SIZE
VR804
BRIGHTNESS
VR803
FOCUS
(COMPONENT SIDE)
(FOIL SIDE)

VTR MAIN C.B.A.


TL5004
TL5003
S-VHS COS EQ
VR3007
TL5501
CL5501
TL5002
TL5001
CL5001
CL3015
TL3005
CL3005
CL3006
CL6010
CL3009
VCO
VP5502
CL3003
TL5504
CL5504
CL5002
CL2001
CL5003
S-VHS VIDEO PB LEVEL
TL3003
VR3006
TL5503
CL5502
S-VHS MOD LEVEL
CL3008
TL5502
CL5503
VR3004
CL5512
CL3001
CL3017
TL3001
YNR
VR3005
CL4508
CL4042
TL5505
CL4041
VR4509
TL3004
CL3016
CL3014
CL3013
FM CARRIER FREQ.(R)
B6004
8
5
1
9 10
15 16
CL2003
TL3507
CL6214
CL6003
CL6004
FM CARRIER FREQ.(L)
CL6211
CL2002
VR4501
CL3501
TL3504
CL6008
TL4554
TL3502
CL3503
CL6001
CL6204
TL4003
TL4002
CL6007
CL6212
CL3502
CL6006
CL6005
CL6002
TL6002
CL6208
TL6003
CL4556
CL6206
CL4511
TL4000
CL4553
CL4555
CL4552
CL6308
CL6306
CL6304
TL4516
CL4557
CL6303
CL6307
CL6011
CL6207
CL6012
TL6001
CL6302
CL6305
CL6209
CL6009
TL6005
TL4515
CL4551
CL4504
CL6301
TL6004
CL3004
CL3020
CL4503
(COMPONENT SIDE)

Memo

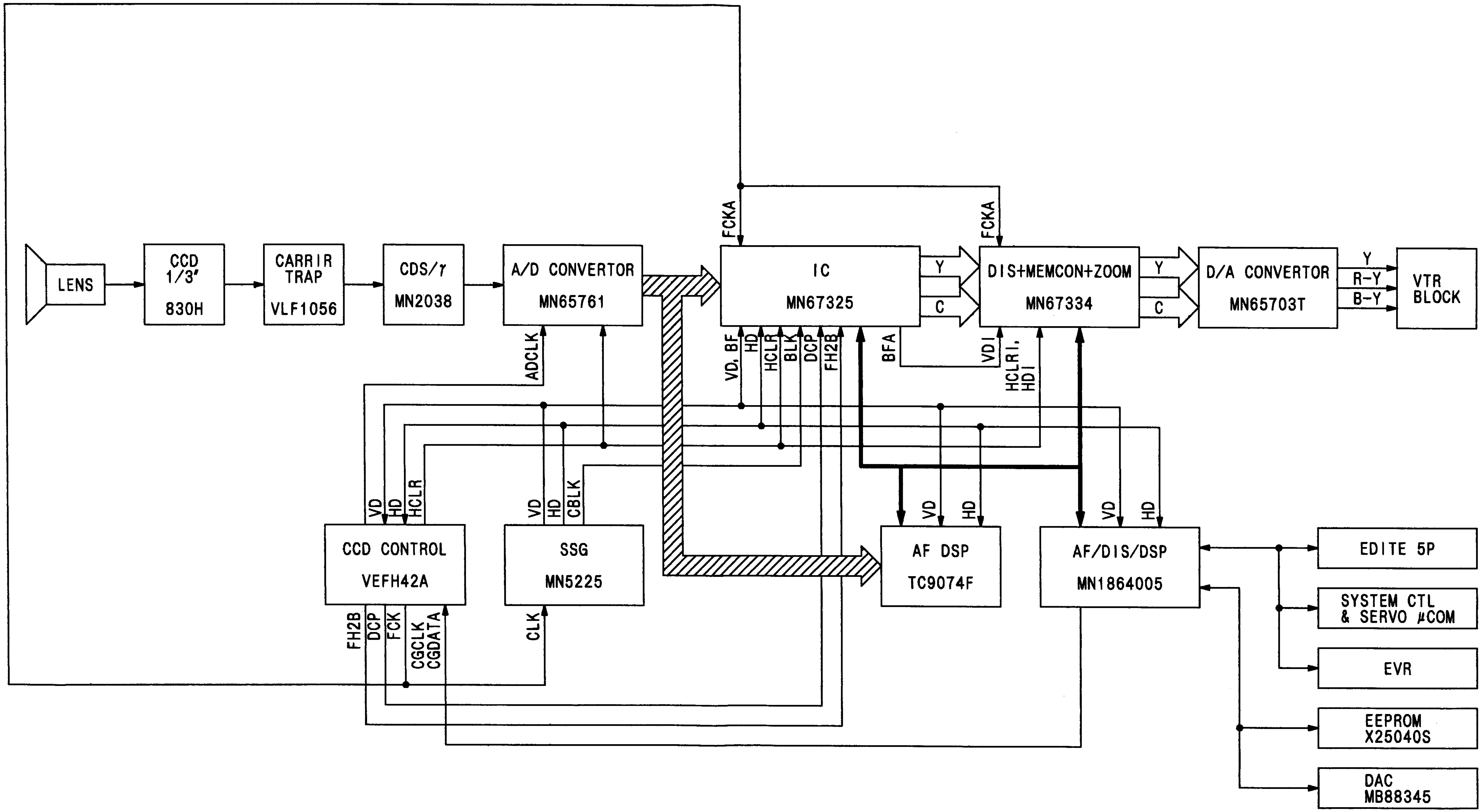
SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

3-1. ABBREVIATIONS

INITIAL/LOGO		ABBREVIATIONS
	3R3V	3. 3V
A	A. TR	AUTO TRACKING
	ABSF	FOCUS ENCODER INPUT
	ADCLK	A/D CLOCK
	ADCNT	A/D CONTROL
	ADREC	AUDIO DELAIED REC
	ADUB	AUDIO DUBBING
	AE	AUTO EXPOSE
	AECNT	AUTO EXPOSE CONTROL
	AEIRQ	AUTO EXPOSE INTERRUPT REQUEST
	AFADE	AUDIO FADE
	AGCCNT	AGC CONTROL
	AGS	ANTI GROUND SHOOTING
	ALCCNT	ALC CONTROL
	ALCMAIN	ALC DRIVE
	AMUT	AUDIO MUTE
	AORP	AUDIO OVER LAP PULSE
	APS	AUTO POWER SAVE
	ARTV	ARTIFICAL VERTICAL SYNC
	ATR	AUTO TRACKING
	AWTB	AUTO WHITE BALANCE B-Y
	AWTR	AUTO WHITE BALANCE R-Y
B	B-Y KB	B-Y CARRIER BALANCE
	BACK	BACK-UP
	BATT	BATTERY
	BFA	BURST FLUG FOR ENCODER
	BFO/BFI	BURST FLUG INPUT/OUTPUT
	BL	BACK LIGHT
	BLDIN	BACK LIGHT DRIVE INPUT
	BLDOUT	BACK LIGHT DRIVE OUTPUT
	BLK	BLANKING PULSE
	BM	BALANCED MODULATOR
	BUF	BUFFER
C	CAPVM	CAPSTAN MOTOR CURRENT
	CAP R/S/F	CAPSTAN REVEASE/STOP/FORWARD
	CCW	COUTER CLOCKWISE
	CDS	CORRELATE DOUBLE SAMPLING SIGNAL
	CFM 1~4	CHROMINANCE FIELD MEMORY
	CGC	CHROMINANCE GAIN
	CH1	Channel 1(Odd Field)
	CHR MIX	CHARACTER MIX
	CK or CLK	CLOCK
	CLK2	CLOCK 2(824XFH: 12. 875MHz)
	CFEM	CHORMINACE MEMORY SIGNAL
	CMO	CHROMA MEMORY OUTPUT
	CO0~7	CHORMO OUTPUT(DIGITAL)
	CP	CLAMP PULSE
	CPOB	OB CLAMP PULSE
	CS	CHIP SELECT
	CSEL1~2	CLOCK PHASE SELECET
	CTSW	CROSSTALK SWITCH
	CW	CLOCWISE
	CYLVM	CYLINDER MOTOR CURRENT or POWER
D	D MODE0~2	DIGITAL MODE SWITCH SIGNAL
	DAC	DIGITA/ANALOG CONVERTER
D	D0~D8(D9)	VIDEO OUT(DIGITAL 8 or 9 BIT)
	DCLR	DIGITAL CLEAR
	DICLK	DIGITAL CLOCK
	DISCS	DIS CHIP SELECT
	DL	DELAY LINE
	DRK	DARK(LPF SWITCH FOR AUTO FOCUS)
	DS 1~2	DOUBLE SAMPLING PULSE
	DSP	DIGITAL SIGNAL PROCESS
	DZ	DIGITAL ZOOM
	DZ/OZ	DIGITAL ZOOM/OPTICAL ZOOM
E	ECM	ELECTRIC CONDENCER MIC
	EEPROM	ELECTRIC ERASABLE PROGRAMABLE-READ
	(E^2 PROM)	ONLY MEMORY
	ENV	ENVELOPE DITECT
	EQ	EQUALIZER
	EZOOM	ELECTRIC ZOOM
F	FAR	FAR(FOCUS)
	FCK	CLOCK
	FENC	FOCUS ENCODER
	FH2B	FH/2(15. 625KHz÷2 =7. 8125KHz)
	FM CS	CHIP SELECT FOR FM-AUDIO
	FM MUTE	FM AUDIO MUTE
	FM0~7(8)	FIELD·MEMORY INPUT 8BIT(or 9BIT)
	FMD REC	FM AUDIO DELAYED REC
	FMOEM	FIELD MEMORY ENABLE
	FNO	F VALUE
G	GCNT	GAIN CONTROL
H	H1~H2	H. CCD DRIVE PULSE
	H. A SW	HEAD AMP SW
	HBRST	HIGH BRIGHT SET
	HCLR	HIGH CLEAR
	HEX	HEXADECIMAL
	HLT	HIGHT BRIGHT SIGNAL
I	INTER	INTERVAL RECORDING
	IOU	R-Y ANALOGUE SIGNAL OUTPUT
	IOV	B-Y ANALOGUE SIGNAL OUTPUT
	IRQ	INTERRUPT REQUEST
	IRIS/SH	IRIS/SHUTTET CONTROL
K	KANDO	DIGITAL GAIN UP
L	LD	LOAD PULSE
	LEDCNT	LED CONTROL
	LI-BATT	LITHIUM BATTERY
	LSB	LEAST SIGNFICANT BIT
	LVL	LPF SWITCH FOR AUTO FOCUS
M	MD	MODILATOR
	MFF	MANUAL FOCUS FAR
	MFN	MANUAL FOCUS NEAR
	MSB	MOST SIGNFICANT BIT
	MIX N. R. D	NON REC DATA MIX

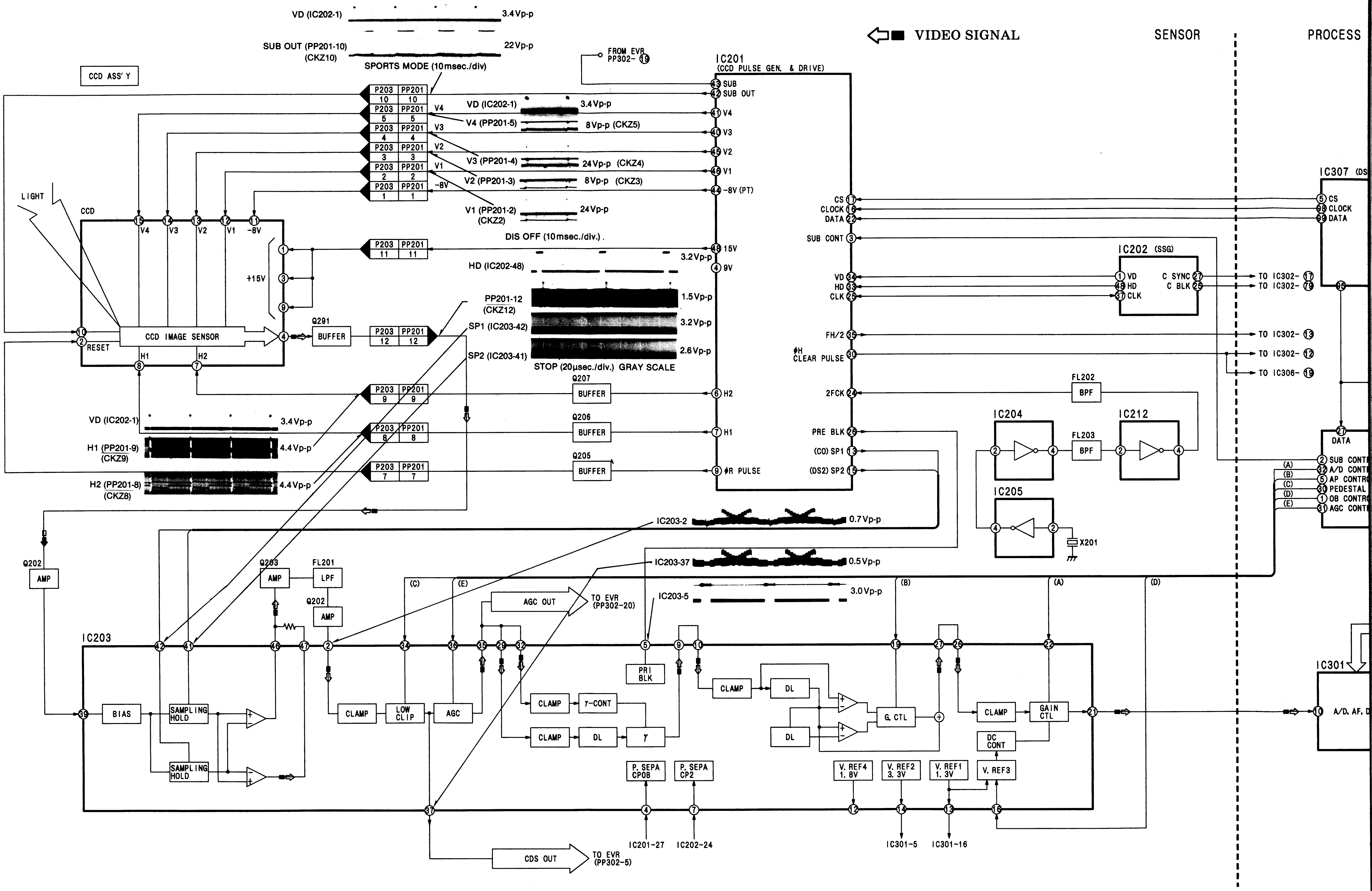
INITIAL/LOGO		ABBREVIATIONS
N	N/F	NEAR/FAR(FOCUS)
	N/P	NTSC/PAL
	NC	NO CONNECTION
	NC1~3	NPN TRANSISTOR C-SIDE
	NDE	NON LINER DE-EMPHAIS
	NEAR	NEAR(FOCUS)
	NLE	NON LINER EMPHASIS
	NRD	NON REC DATA
	NRDBLK	NON REC DATA BLNKING
	NRE	READ ENABLE INPUT(LOW ACTIVE)
	NWE	WRITE ENABLE(LOW ACTIVE)
O	OBCNT	OPTICAL BLACK CONTROL
	OE	OUTPUT ENABLE
	OP	OPERATIONAL AMP OUTPUT
	OSD	ON SCREEN DISPLAY
P	PB1~3	PNP TRANSITOR B-SIDE
	PBLK	PRE-BLANKING
	PCBM(B-Y)	B-Y CARRIER BALANCE
	PCBM(R-Y)	R-Y CARRIER BALANCE
	PEDECNT	PEDESTAL CONTROL
	PORIN or POR	POWER ON RESET
	PREAP	PRE-AMP
	PREBLK	PRE-BLANKING
	PT	PROTECT FOR V VOLTAGE
	PWM	PULSE WIDTH MODULATOR
R	R/B	READT/BUSY
	R-Y KB	R-Y CARRIER BALANCE
	RAD	READ ADDRESS DATA
	RAE	READ ADDRESS ENABLE
	RE	READ ENABLE
	RE	ROTARY ERASE HEAD
	RERASE	ROTARY ERASE HEAD
	RST	RESET
	RSTPWD	RESET POWER DOWN INPUT
	RSTR	RESET READ
	RSTW	RESET WRITE
S	S/S	START/STOP
	SBO	SERIAL OUTPUT
	SBD	SERIAL DATA
	SCLK	SERIAL CLOCK
	SCR	SERCH
	SDET	S-VHS DETECT
	SH/IRIS	SHUTTER/IRIS CONTROL
	STAB	S-VHS TAB SWITCH
	STRB	STRBO MODE
	SUB CNT	SUB CONTROL
T	TBC	TIME BASE CORRECTOR
	TBC. C OUT	TIME BASE CORRECTOR CHROMA OUT
	TBC. V OUT	TIME BASE CORRECTOR VIDEO OUT
	TL	TORQUE LIMIT
T	TRFIX	TRACKING FIX
	TRIWAVE	TRIANGLE WAVE
	TRP	TRAP
U	U/V SECT	R-Y/B-Y SELECT SIGNAL
	UVSEL	R-Y/B-Y SELECT SIGNAL
V	V1~V4	V. CCD DRIVE PULSE
	VB	VH FILTER SWITCHING
	VCO	VOLTAGE CONTROL OSCILLTOR
	VCTRL	VOLTAGE CHARGE CONTROL
	VD	VERTICAL DRIVE PULSE
	VDREC	VIDEO DELAYED REC
	VDDX	X DRIVE POWER FOR COLOUR LCD
	VDDXY	XY DRIVE POWER FOR COLOUR LCD
	VDDY	Y DRIVE POWER FOR COLOUR LCD
	VIN	VIDEO IN(ANALOGUE)
	VITC	VETICAL INTERVAL TIME CODE
	VMD1~VMD3	VELOCITY MODE DATA(SHUTTER)
	VMVH	VH FILTER SWITCHING
	VORP	VIDEO OVERLAP
	VRB	VOLTAGE REFERENCE BOTTOM(1. 3V)
	VREF1R3V	REFERENCE VOLTAGE 1. 3V
	VREF3R3V	REFERENCE VOLTAGE 3. 3V
	VREFH	REFERENCE VOLTAGE HIGH SIDE
	VREFL	REFERENCE VOLTAGE LOW SIDE
	VRI	REFERENCE VOLTAGE INPUT
	VRO	REFERENCE VOLTAGE OUTPUT
	VRT	VOLTAGE REFERENCE TOP(3. 3V)
	VSS	VERTICAL SYNC SIGNAL
	VSSX	X DRIVER POWR FOR COLOUR LCD
	VSSXY	X-Y DRIVER POWR FOR COLOUR LCD
W	WAD or WAE	WRITE ADDRESS ENABLE
	WE	WRITE ENABLE
	WHD	WIDE HORIZONTAL DRIVE PULSE
Y	Y0~Y7(Y8)	8BIT(9BIT)LUMINANCE DIGITAL SIGNAL
	YNCST	NOISE CANCELER
	YNR	NOISE REDUCTION
Z	Z ENC	ZOOM ENCODER
	Z-MIC	ZOOM MIC
	ZENC1/ZENC4	ZOOM ENCEODER OUTPUT
	ZMTER	ZOOM MOTOR TELE SIDE
	ZMT(+)/(-)	ZOOM MOTOR (+)/(-)
	ZMW	ZOOM MOTOR WIDE SIDE

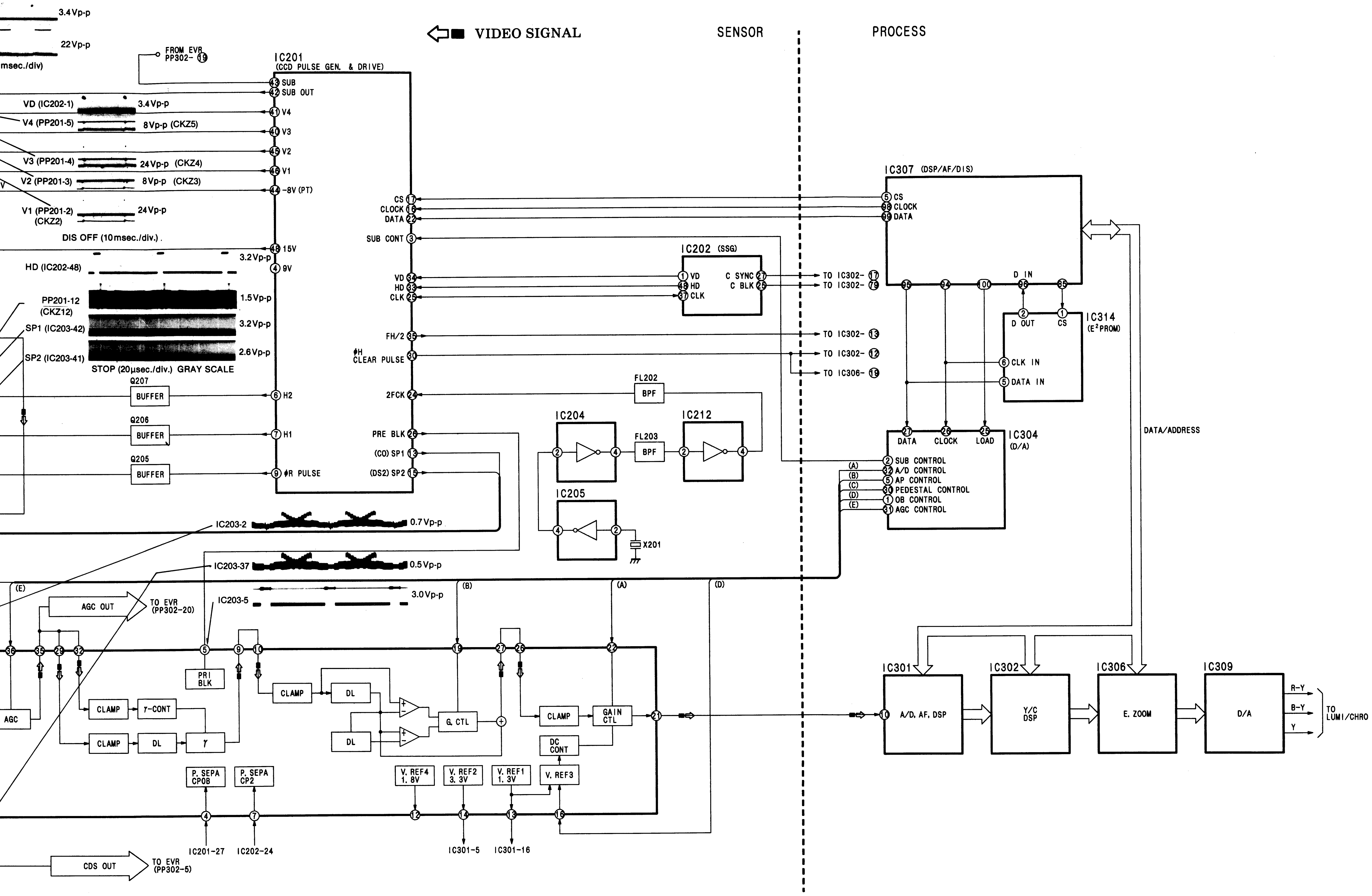
3-2. OVERALL BLOCK DIAGRAM


LENS
CCD 1/3″ 830H
CARRIR TRAP VLF1056
CDS/γ MN2038
A/D CONVERTOR MN65761
IC MN67325
DIS+MEMCON+ZOOM MN67334
D/A CONVERTOR MN65703T
VTR BLOCK
FCKA
FCKA
Y
C
Y
C
Y
R-Y
B-Y
ADCLK
VD, BF
HD
HCLR
BLK
DCP
FH2B
BFA
VDI
HCLRI, HDI
VD
HD
HCLR
VD
HD
CBLK
CCD CONTROL VEFH42A
SSG MN5225
VD
HD
AF DSP TC9074F
VD
HD
AF/DIS/DSP MN1864005
FH2B
DCP
FCK
CGCLK
CGDATA
CLK
EDITE 5P
SYSTEM CTL & SERVO μCOM
EVR
EEPROM X25040S
DAC MB88345

Back Page:
ABBREVIATION Section

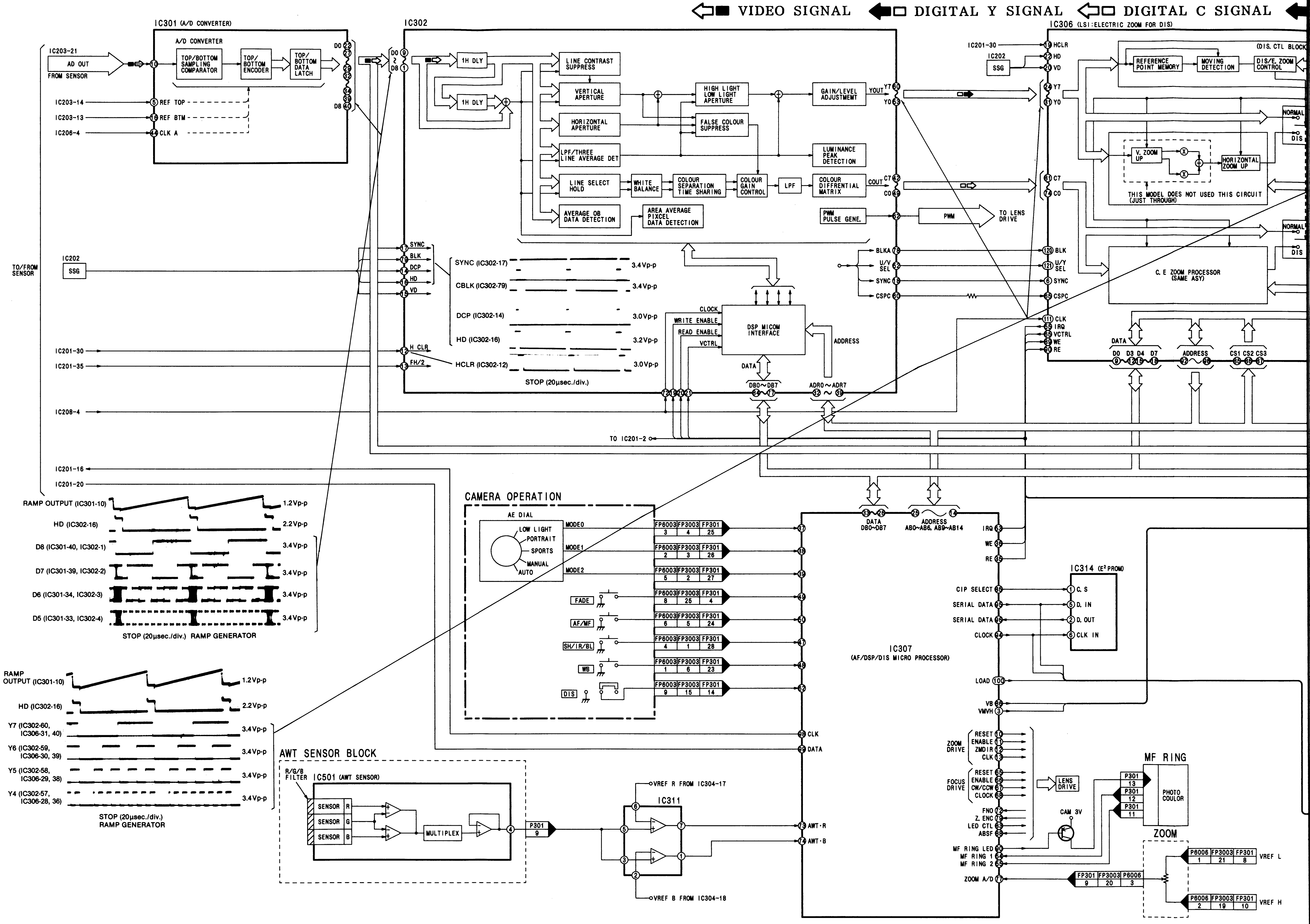
3-3. SENSOR BLOCK DIAGRAM

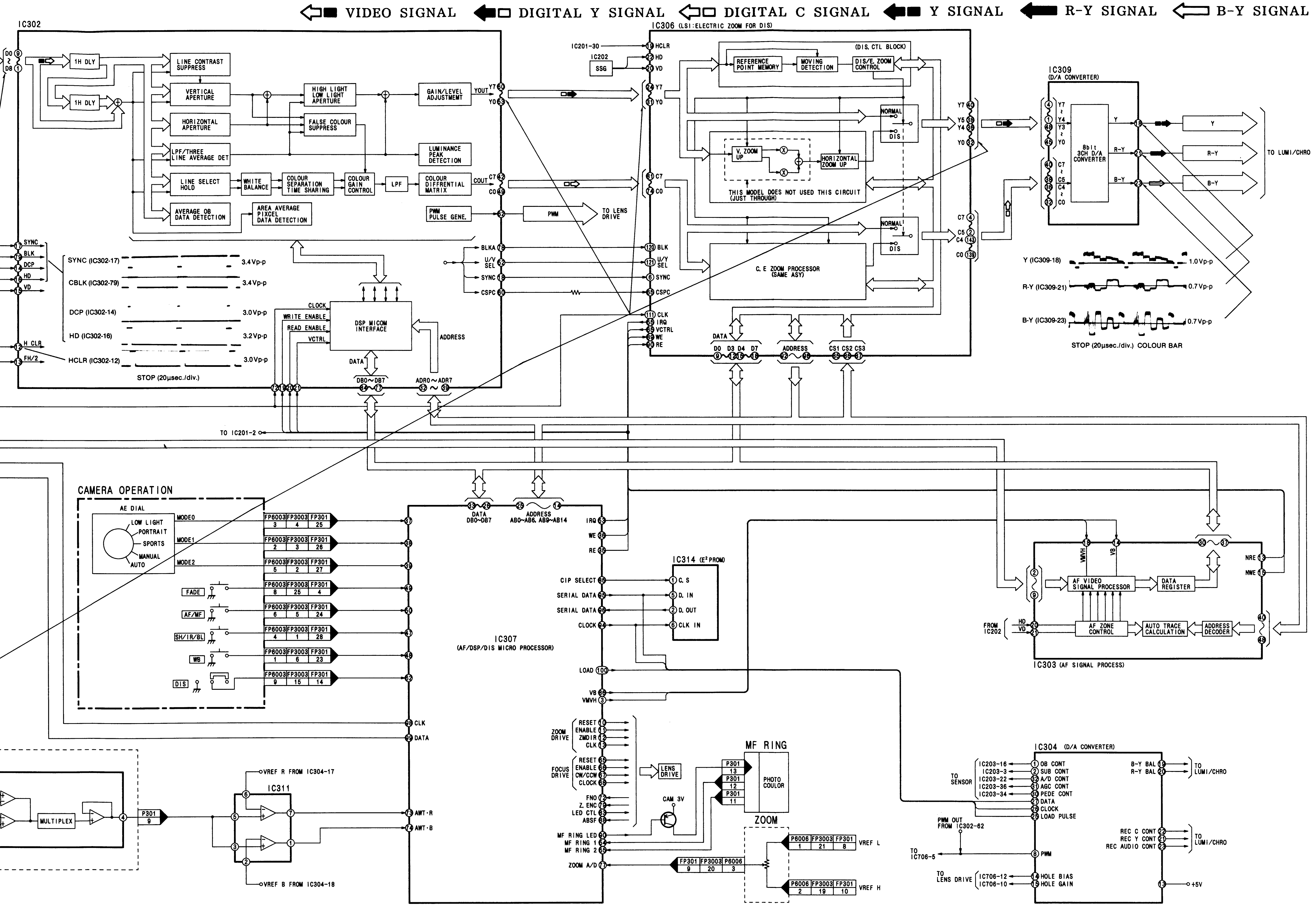

VD (IC202-1)
3.4Vp-p
SUB OUT (PP201-10)
(CKZ10)
22Vp-p
SPORTS MODE (10msec./div)
FROM EVR
PP302- ⑲
VIDEO SIGNAL
SENSOR
PROCESS
CCD ASS'Y
IC201
(CCD PULSE GEN. & DRIVE)
㊸ SUB
㊷ SUB OUT
㊶ V4
㊵ V3
㊺ V2
㊻ V1
㊹ -8V (PT)
㊽ 15V
④ 9V
⑥ H2
⑦ H1
⑨ ϕR PULSE
CS ⑰
CLOCK ⑯
DATA ㉒
SUB CONT ③
VD ㉞
HD ㉝
CLK ㉕
FH/2 ㉟
ϕH CLEAR PULSE ㉚
2FCK ㉔
PRE BLK ㉖
(CO) SP1 ⑬
(DS2) SP2 ⑮
P203
PP201
V4
V3
V2
V1
-8V
VD (IC202-1)
3.4Vp-p
V4 (PP201-5)
8Vp-p (CKZ5)
V3 (PP201-4)
24Vp-p (CKZ4)
V2 (PP201-3)
8Vp-p (CKZ3)
V1 (PP201-2)
(CKZ2)
24Vp-p
DIS OFF (10msec./div.)
3.2Vp-p
HD (IC202-48)
PP201-12
(CKZ12)
1.5Vp-p
SP1 (IC203-42)
3.2Vp-p
SP2 (IC203-41)
2.6Vp-p
STOP (20μsec./div.) GRAY SCALE
LIGHT
CCD
V4
V3
V2
V1
-8V
+15V
CCD IMAGE SENSOR
RESET
H1
H2
Q291
BUFFER
Q207
BUFFER
Q206
BUFFER
Q205
BUFFER
VD (IC202-1)
3.4Vp-p
H1 (PP201-9)
(CKZ9)
4.4Vp-p
H2 (PP201-8)
(CKZ8)
4.4Vp-p
IC307 (DS
⑤ CS
㊳ CLOCK
㊴ DATA
IC202 (SSG)
① VD
㊽ HD
㊲ CLK
C SYNC ㉗
C BLK ㉕
TO IC302- ⑰
TO IC302- ㊾
TO IC302- ⑬
TO IC302- ⑫
TO IC306- ⑲
FL202
BPF
IC204
FL203
BPF
IC212
IC205
X201
㉗ DATA
② SUB CONT
㉜ A/D CONT
⑤ AP CONTR
㉚ PEDESTAL
① OB CONTR
㉛ AGC CONT
(A)
(B)
(C)
(D)
(E)
IC203-2
0.7Vp-p
IC203-37
0.5Vp-p
IC203-5
3.0Vp-p
Q202
AMP
Q203
AMP
FL201
LPF
Q202
AMP
AGC OUT
TO EVR
(PP302-20)
IC203
BIAS
SAMPLING HOLD
SAMPLING HOLD
CLAMP
LOW CLIP
AGC
CLAMP
γ-CONT
CLAMP
DL
γ
PRI BLK
CLAMP
DL
DL
G. CTL
CLAMP
GAIN CTL
DC CONT
P. SEPA CPOB
P. SEPA CP2
V. REF4 1.8V
V. REF2 3.3V
V. REF1 1.3V
V. REF3
IC201-27
IC202-24
IC301-5
IC301-16
CDS OUT
TO EVR
(PP302-5)
IC301
A/D, AF, D


VIDEO SIGNAL
SENSOR
PROCESS
3.4Vp-p
22Vp-p
msec./div)
FROM EVR PP302-⑲
IC201 (CCD PULSE GEN. & DRIVE)
43 SUB
42 SUB OUT
41 V4
40 V3
45 V2
46 V1
44 -8V (PT)
48 15V
4 9V
6 H2
7 H1
9 ϕR PULSE
CS 17
CLOCK 16
DATA 22
SUB CONT 3
VD 34
HD 33
CLK 25
FH/2 35
ϕH CLEAR PULSE 30
2FCK 24
PRE BLK 26
(CO) SP1 13
(DS2) SP2 15
VD (IC202-1)
3.4Vp-p
V4 (PP201-5)
8Vp-p (CKZ5)
V3 (PP201-4)
24Vp-p (CKZ4)
V2 (PP201-3)
8Vp-p (CKZ3)
V1 (PP201-2) (CKZ2)
24Vp-p
DIS OFF (10msec./div.)
3.2Vp-p
HD (IC202-48)
PP201-12 (CKZ12)
1.5Vp-p
SP1 (IC203-42)
3.2Vp-p
SP2 (IC203-41)
2.6Vp-p
STOP (20μsec./div.) GRAY SCALE
Q207 BUFFER
Q206 BUFFER
Q205 BUFFER
IC202 (SSG)
1 VD
48 HD
37 CLK
C SYNC 27
C BLK 26
TO IC302- ⑰
TO IC302- ⑲
TO IC302- ⑬
TO IC302- ⑫
TO IC306- ⑲
FL202 BPF
FL203 BPF
IC204
IC212
IC205
X201
IC203-2
0.7Vp-p
IC203-37
0.5Vp-p
IC203-5
3.0Vp-p
(E)
(B)
(A)
(D)
AGC OUT
TO EVR (PP302-20)
AGC
36
35
29
32
5
9
10
19
27
26
22
21
PRI BLK
CLAMP
γ-CONT
CLAMP
DL
γ
CLAMP
DL
DL
G. CTL
CLAMP
GAIN CTL
DC CONT
P. SEPA CPOB
P. SEPA CP2
V. REF4 1.8V
V. REF2 3.3V
V. REF1 1.3V
V. REF3
4
7
12
14
13
16
IC201-27
IC202-24
IC301-5
IC301-16
CDS OUT
TO EVR (PP302-5)
IC307 (DSP/AF/DIS)
5 CS
38 CLOCK
39 DATA
D IN
96
94
100
98
95
IC314 (E²PROM)
2 D OUT
1 CS
6 CLK IN
5 DATA IN
IC304 (D/A)
27 DATA
26 CLOCK
25 LOAD
2 SUB CONTROL
32 A/D CONTROL
5 AP CONTROL
30 PEDESTAL CONTROL
1 OB CONTROL
31 AGC CONTROL
(A)
(B)
(C)
(D)
(E)
DATA/ADDRESS
IC301
A/D, AF, DSP
10
IC302
Y/C DSP
IC306
E. ZOOM
IC309
D/A
R-Y
B-Y
Y
TO LUMI/CHRO

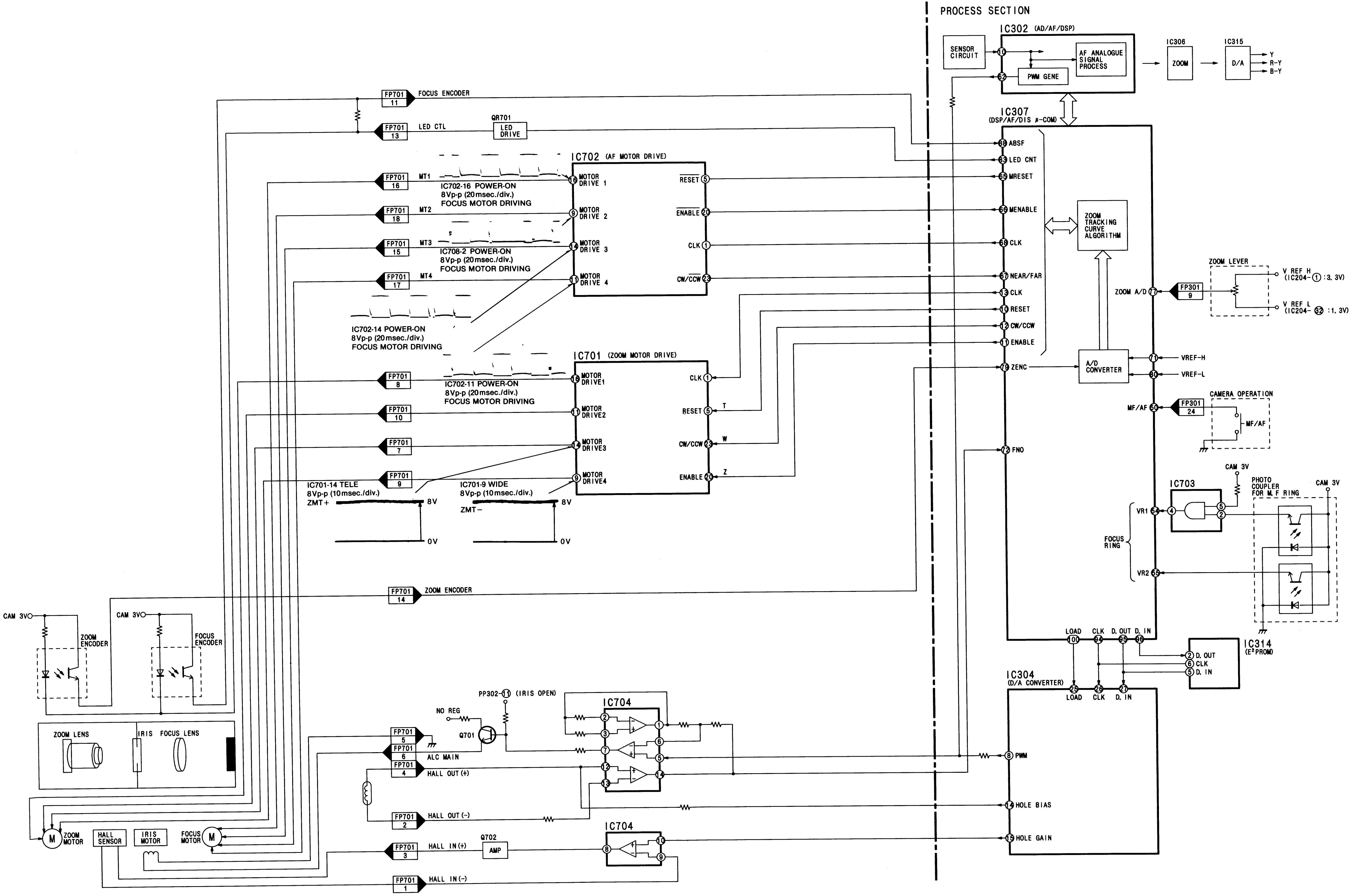
Next Page:
PROCESS Section

3-4. PROCESS BLOCK DIAGRAM


VIDEO SIGNAL
DIGITAL Y SIGNAL
DIGITAL C SIGNAL
IC301 (A/D CONVERTER)
A/D CONVERTER
TOP/BOTTOM SAMPLING COMPARATOR
TOP/BOTTOM ENCODER
TOP/BOTTOM DATA LATCH
IC203-21
AD OUT FROM SENSOR
IC203-14
IC203-13
IC206-4
REF TOP
REF BTM
CLK A
D0
D8
TO/FROM SENSOR
IC202
SSG
IC302
1H DLY
1H DLY
LINE CONTRAST SUPPRESS
VERTICAL APERTURE
HORIZONTAL APERTURE
LPF/THREE LINE AVERAGE DET
LINE SELECT HOLD
WHITE BALANCE
COLOUR SEPARATION TIME SHARING
COLOUR GAIN CONTROL
LPF
COLOUR DIFFRENTIAL MATRIX
HIGH LIGHT LOW LIGHT APERTURE
FALSE COLOUR SUPPRESS
GAIN/LEVEL ADJUSTMEMT
LUMINANCE PEAK DETECTION
AVERAGE OB DATA DETECTION
AREA AVERAGE PIXCEL DATA DETECTION
PWM PULSE GENE.
PWM
TO LENS DRIVE
YOUT Y7 Y0
COUT C7 C0
SYNC
BLK
DCP
HD
VD
H CLR
FH/2
BLKA
U/V SEL
SYNC
CSPC
DSP MICOM INTERFACE
CLOCK
WRITE ENABLE
READ ENABLE
VCTRL
ADDRESS
DATA
DB0~DB7
ADR0~ADR7
SYNC (IC302-17) 3.4Vp-p
CBLK (IC302-79) 3.4Vp-p
DCP (IC302-14) 3.0Vp-p
HD (IC302-16) 3.2Vp-p
HCLR (IC302-12) 3.0Vp-p
STOP (20μsec./div.)
IC201-30
IC201-35
IC208-4
TO IC201-2
IC201-16
IC201-20
RAMP OUTPUT (IC301-10) 1.2Vp-p
HD (IC302-16) 2.2Vp-p
D8 (IC301-40, IC302-1) 3.4Vp-p
D7 (IC301-39, IC302-2) 3.4Vp-p
D6 (IC301-34, IC302-3) 3.4Vp-p
D5 (IC301-33, IC302-4) 3.4Vp-p
STOP (20μsec./div.) RAMP GENERATOR
RAMP OUTPUT (IC301-10) 1.2Vp-p
HD (IC302-16) 2.2Vp-p
Y7 (IC302-60, IC306-31, 40) 3.4Vp-p
Y6 (IC302-59, IC306-30, 39) 3.4Vp-p
Y5 (IC302-58, IC306-29, 38) 3.4Vp-p
Y4 (IC302-57, IC306-28, 36) 3.4Vp-p
STOP (20μsec./div.) RAMP GENERATOR
IC306 (LSI:ELECTRIC ZOOM FOR DIS)
IC201-30
HCLR
HD
VD
Y7
Y0
C7
C0
BLK
U/Y SEL
SYNC
CSPC
CLK
IRQ
VCTRL
WE
RE
(DIS. CTL BLOCK)
REFERENCE POINT MEMORY
MOVING DETECTION
DIS/E. ZOOM CONTROL
NORMAL
DIS
V. ZOOM UP
HORIZONTAL ZOOM UP
THIS MODEL DOES NOT USED THIS CIRCUIT (JUST THROUGH)
C. E ZOOM PROCESSOR (SAME ASY)
DATA
D0 D3 D4 D7
ADDRESS
CS1 CS2 CS3
CAMERA OPERATION
AE DIAL
LOW LIGHT
PORTRAIT
SPORTS
MANUAL
AUTO
MODE0
MODE1
MODE2
FADE
AF/MF
SH/IR/BL
WB
DIS
FP6003 FP3003 FP301
DATA DB0~DB7
ADDRESS AB0~AB6, AB9~AB14
IRQ
WE
RE
CIP SELECT
SERIAL DATA
SERIAL DATA
CLOCK
IC314 (E²PROM)
C. S
D. IN
D. OUT
CLK IN
IC307 (AF/DSP/DIS MICRO PROCESSOR)
LOAD
VB
VMVH
CLK
DATA
ZOOM DRIVE
RESET
ENABLE
ZMDIR
CLK
FOCUS DRIVE
RESET
ENABLE
CW/CCW
CLOCK
LENS DRIVE
FNO
Z. ENC
LED CTL
ABSF
MF RING LED
MF RING 1
MF RING 2
ZOOM A/D
AWT·R
AWT·B
CAM 3V
MF RING
PHOTO COULOR
P301 13
P301 12
P301 11
ZOOM
P6006 FP3003 FP301
VREF L
VREF H
AWT SENSOR BLOCK
R/G/B FILTER
IC501 (AWT SENSOR)
SENSOR R
SENSOR G
SENSOR B
MULTIPLEX
P301 9
IC311
VREF R FROM IC304-17
VREF B FROM IC304-18

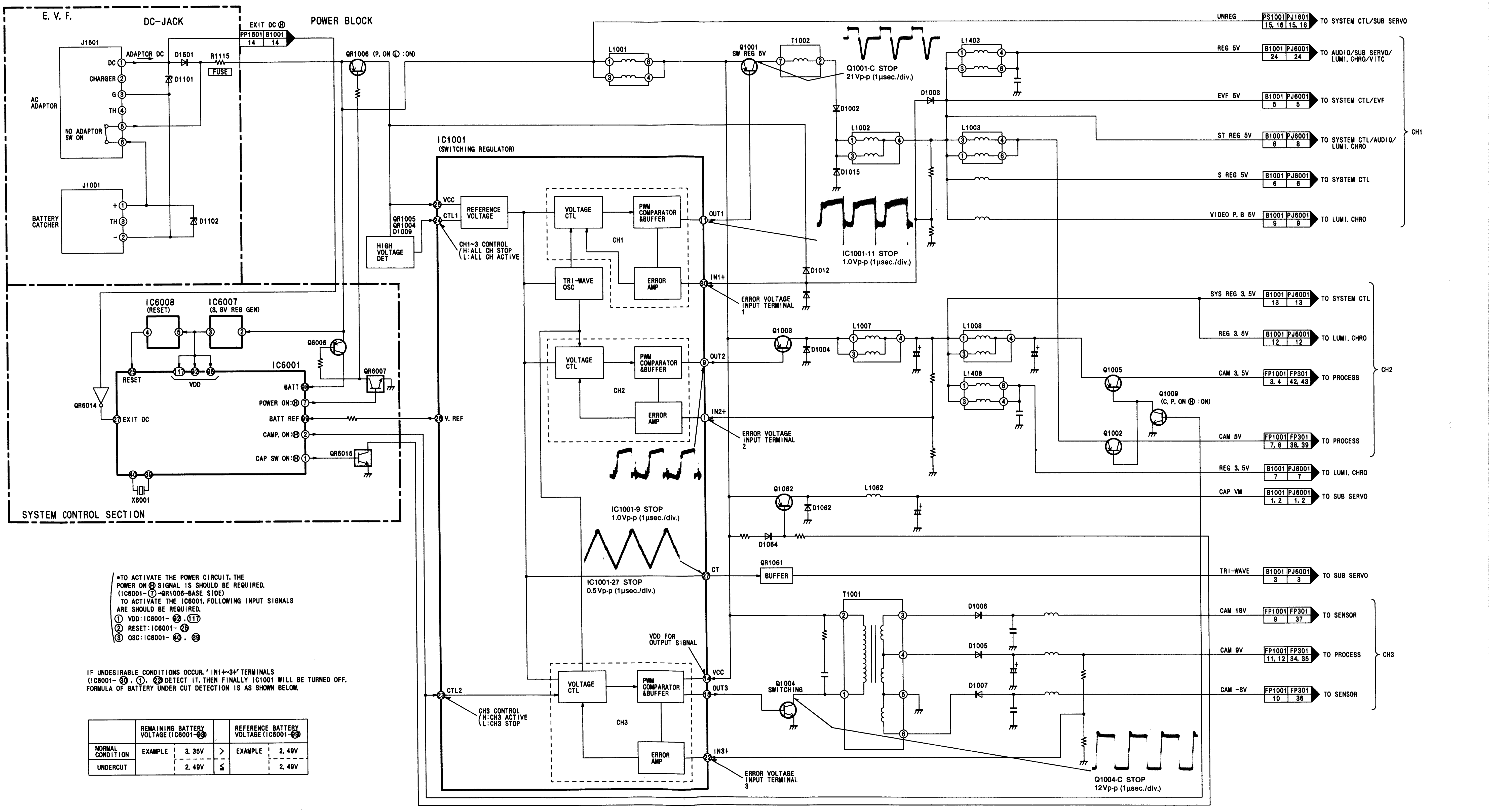

VIDEO SIGNAL
DIGITAL Y SIGNAL
DIGITAL C SIGNAL
Y SIGNAL
R-Y SIGNAL
B-Y SIGNAL
IC302
1H DLY
1H DLY
LINE CONTRAST SUPPRESS
VERTICAL APERTURE
HORIZONTAL APERTURE
LPF/THREE LINE AVERAGE DET
LINE SELECT HOLD
AVERAGE OB DATA DETECTION
HIGH LIGHT LOW LIGHT APERTURE
FALSE COLOUR SUPPRESS
WHITE BALANCE
COLOUR SEPARATION TIME SHARING
COLOUR GAIN CONTROL
LPF
AREA AVERAGE PIXCEL DATA DETECTION
GAIN/LEVEL ADJUSTMENT
LUMINANCE PEAK DETECTION
COLOUR DIFFRENTIAL MATRIX
PWM PULSE GENE.
YOUT
COUT
PWM
TO LENS DRIVE
BLKA
U/V SEL
SYNC
CSPC
DSP MICOM INTERFACE
CLOCK
WRITE ENABLE
READ ENABLE
VCTRL
ADDRESS
DATA
DB0~DB7
ADR0~ADR7
SYNC (IC302-17) 3.4Vp-p
CBLK (IC302-79) 3.4Vp-p
DCP (IC302-14) 3.0Vp-p
HD (IC302-16) 3.2Vp-p
HCLR (IC302-12) 3.0Vp-p
STOP (20µsec./div.)
H CLR
FH/2
TO IC201-2
IC306 (LSI:ELECTRIC ZOOM FOR DIS)
IC201-30
IC202
SSG
HCLR
HD
VD
(DIS. CTL BLOCK)
REFERENCE POINT MEMORY
MOVING DETECTION
DIS/E. ZOOM CONTROL
NORMAL
DIS
V. ZOOM UP
HORIZONTAL ZOOM UP
THIS MODEL DOES NOT USED THIS CIRCUIT (JUST THROUGH)
C. E ZOOM PROCESSOR (SAME ASY)
CLK
IRQ
VCTRL
WE
RE
DATA
D0 D3 D4 D7
ADDRESS
CS1 CS2 CS3
IC309 (D/A CONVERTER)
8bit 3CH D/A CONVERTER
Y
R-Y
B-Y
TO LUMI/CHRO
Y (IC309-18) 1.0Vp-p
R-Y (IC309-21) 0.7Vp-p
B-Y (IC309-23) 0.7Vp-p
STOP (20µsec./div.) COLOUR BAR
CAMERA OPERATION
AE DIAL
LOW LIGHT
PORTRAIT
SPORTS
MANUAL
AUTO
MODE0
MODE1
MODE2
FADE
AF/MF
SH/IR/BL
WB
DIS
FP6003 FP3003 FP301
IC307 (AF/DSP/DIS MICRO PROCESSOR)
DATA DB0~DB7
ADDRESS AB0~AB6, AB9~AB14
IRQ
WE
RE
CIP SELECT
SERIAL DATA
SERIAL DATA
CLOCK
LOAD
VB
VMVH
CLK
DATA
ZOOM DRIVE RESET ENABLE ZMDIR CLK
FOCUS DRIVE RESET ENABLE CW/CCW CLOCK
LENS DRIVE
FNO
Z. ENC
LED CTL
ABSF
MF RING LED
MF RING 1
MF RING 2
ZOOM A/D
AWT-R
AWT-B
IC314 (E²PROM)
C. S
D. IN
D. OUT
CLK IN
MF RING
PHOTO COULOR
CAM 3V
ZOOM
VREF L
VREF H
IC311
VREF R FROM IC304-17
VREF B FROM IC304-18
MULTIPLEX
P301
IC303 (AF SIGNAL PROCESS)
AF VIDEO SIGNAL PROCESSOR
DATA REGISTER
AF ZONE CONTROL
AUTO TRACE CALCULATION
ADDRESS DECODER
FROM IC202
HD
VD
NRE
NWE
VMVH
VB
IC304 (D/A CONVERTER)
TO SENSOR
IC203-16 OB CONT
IC203-3 SUB CONT
IC203-22 A/D CONT
IC203-36 AGC CONT
IC203-34 PEDE CONT
DATA
CLOCK
LOAD PULSE
PWM OUT FROM IC302-62
TO IC706-5
PWM
TO LENS DRIVE
IC706-12 HOLE BIAS
IC706-10 HOLE GAIN
B-Y BAL
R-Y BAL
TO LUMI/CHRO
REC C CONT
REC Y CONT
REC AUDIO CONT
+5V

3-5. LENS DRIVE BLOCK DIAGRAM



PROCESS SECTION
IC302 (AD/AF/DSP)
SENSOR CIRCUIT
AF ANALOGUE SIGNAL PROCESS
PWM GENE
IC306
ZOOM
IC315
D/A
Y
R-Y
B-Y
IC307 (DSP/AF/DIS μ-COM)
ABSF
LED CNT
MRESET
MENABLE
CLK
NEAR/FAR
CLK
RESET
CW/CCW
ENABLE
ZENC
FNO
ZOOM TRACKING CURVE ALGORITHM
A/D CONVERTER
ZOOM A/D
VREF-H
VREF-L
MF/AF
LOAD
CLK
D. OUT
D. IN
ZOOM LEVER
V REF H (IC204-① :3. 3V)
V REF L (IC204-㉜ :1. 3V)
FP301 9
FP301 24
CAMERA OPERATION
MF/AF
CAM 3V
IC703
PHOTO COUPLER FOR M. F RING
CAM 3V
VR1
VR2
FOCUS RING
IC314 (E²PROM)
D. OUT
CLK
D. IN
IC304 (D/A CONVERTER)
LOAD
CLK
D. IN
PWM
HOLE BIAS
HOLE GAIN
FP701 11
FOCUS ENCODER
FP701 13
LED CTL
QR701
LED DRIVE
IC702 (AF MOTOR DRIVE)
FP701 16
MT1
MOTOR DRIVE 1
IC702-16 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
FP701 18
MT2
MOTOR DRIVE 2
FP701 15
MT3
MOTOR DRIVE 3
IC708-2 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
FP701 17
MT4
MOTOR DRIVE 4
RESET
ENABLE
CLK
CW/CCW
IC702-14 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC701 (ZOOM MOTOR DRIVE)
FP701 8
MOTOR DRIVE1
IC702-11 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
FP701 10
MOTOR DRIVE2
FP701 7
MOTOR DRIVE3
FP701 9
MOTOR DRIVE4
CLK
RESET
CW/CCW
ENABLE
T
W
Z
IC701-14 TELE
8Vp-p (10msec./div.)
ZMT+
8V
0V
IC701-9 WIDE
8Vp-p (10msec./div.)
ZMT−
8V
0V
FP701 14
ZOOM ENCODER
CAM 3V
ZOOM ENCODER
CAM 3V
FOCUS ENCODER
ZOOM LENS
IRIS
FOCUS LENS
PP302-⑪ (IRIS OPEN)
NO REG
Q701
IC704
FP701 5
FP701 6
ALC MAIN
FP701 4
HALL OUT (+)
FP701 2
HALL OUT (−)
IC704
FP701 3
HALL IN (+)
Q702
AMP
FP701 1
HALL IN (−)
ZOOM MOTOR
HALL SENSOR
IRIS MOTOR
FOCUS MOTOR
M

3-6. POWER BLOCK DIAGRAM


E. V. F.
DC-JACK
POWER BLOCK
EXIT DC Ⓗ
PP1601 B1001 14 14
J1501
AC ADAPTOR
DC ①
CHARGER ②
G ③
TH ④
NO ADAPTOR SW ON ⑤ ⑥
ADAPTOR DC
D1501
R1115
FUSE
D1101
J1001
BATTERY CATCHER
+ ①
TH ③
- ②
D1102
QR1006 (P. ON Ⓛ :ON)
QR1005
QR1004
D1009
HIGH VOLTAGE DET
IC1001 (SWITCHING REGULATOR)
VCC
CTL1
REFERENCE VOLTAGE
CH1~3 CONTROL (H:ALL CH STOP / L:ALL CH ACTIVE)
VOLTAGE CTL
PWM COMPARATOR &BUFFER
TRI-WAVE OSC
ERROR AMP
CH1
CH2
CH3
OUT1
IN1+
OUT2
IN2+
OUT3
IN3+
CT
CTL2
V. REF
VDD FOR OUTPUT SIGNAL
CH3 CONTROL (H:CH3 ACTIVE / L:CH3 STOP)
ERROR VOLTAGE INPUT TERMINAL 1
ERROR VOLTAGE INPUT TERMINAL 2
ERROR VOLTAGE INPUT TERMINAL 3
IC1001-11 STOP 1.0Vp-p (1μsec./div.)
IC1001-9 STOP 1.0Vp-p (1μsec./div.)
IC1001-27 STOP 0.5Vp-p (1μsec./div.)
Q1001-C STOP 21Vp-p (1μsec./div.)
Q1004-C STOP 12Vp-p (1μsec./div.)
L1001
Q1001 SW REG 5V
T1002
L1403
D1002
D1003
L1002
L1003
D1015
D1012
Q1003
D1004
L1007
L1008
L1408
Q1005
Q1009 (C. P. ON Ⓗ :ON)
Q1002
Q1062
D1062
L1062
D1064
QR1061
BUFFER
T1001
Q1004 SWITCHING
D1006
D1005
D1007
UNREG
REG 5V
EVF 5V
ST REG 5V
S REG 5V
VIDEO P. B 5V
SYS REG 3. 5V
REG 3. 5V
CAM 3. 5V
CAM 5V
REG 3. 5V
CAP VM
TRI-WAVE
CAM 18V
CAM 9V
CAM -8V
PS1001 PJ1601 15, 16 15, 16
B1001 PJ6001 24 24
B1001 PJ6001 5 5
B1001 PJ6001 8 8
B1001 PJ6001 6 6
B1001 PJ6001 9 9
B1001 PJ6001 13 13
B1001 PJ6001 12 12
FP1001 FP301 3, 4 42, 43
FP1001 FP301 7, 8 38, 39
B1001 PJ6001 7 7
B1001 PJ6001 1, 2 1, 2
B1001 PJ6001 3 3
FP1001 FP301 9 37
FP1001 FP301 11, 12 34, 35
FP1001 FP301 10 36
TO SYSTEM CTL/SUB SERVO
TO AUDIO/SUB SERVO/ LUMI. CHRO/VITC
TO SYSTEM CTL/EVF
TO SYSTEM CTL/AUDIO/ LUMI. CHRO
TO SYSTEM CTL
TO LUMI. CHRO
TO SYSTEM CTL
TO LUMI. CHRO
TO PROCESS
TO PROCESS
TO LUMI. CHRO
TO SUB SERVO
TO SUB SERVO
TO SENSOR
TO PROCESS
TO SENSOR
CH1
CH2
CH3
IC6008 (RESET)
IC6007 (3. 8V REG GEN)
IC6001
Q6006
QR6007
QR6014
QR6015
RESET
VDD
BATT
POWER ON:Ⓗ ⑦
BATT REF
CAMP. ON:Ⓗ ②
CAP SW ON:Ⓗ ①
EXIT DC
X6001
SYSTEM CONTROL SECTION

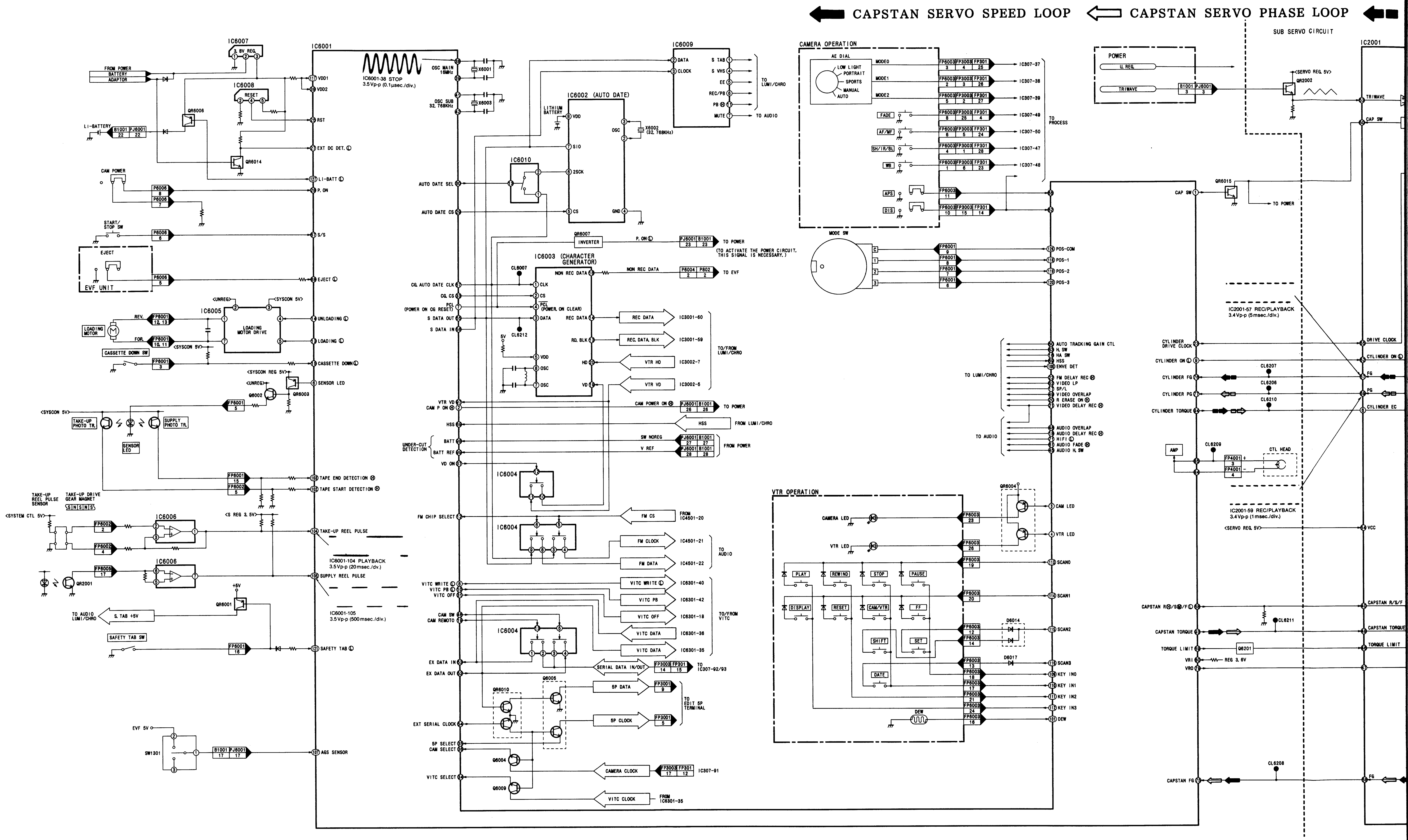
- TO ACTIVATE THE POWER CIRCUIT, THE POWER ON Ⓗ SIGNAL IS SHOULD BE REQUIRED. (IC6001-⑦→QR1006-BASE SIDE)
  TO ACTIVATE THE IC6001, FOLLOWING INPUT SIGNALS ARE SHOULD BE REQUIRED.
  ① VDD:IC6001- (92), (117)
  ② RESET:IC6001- ㉕
  ③ OSC:IC6001- ㊵, ㊴

IF UNDESIRABLE CONDITIONS OCCUR, 'IN1+~3+' TERMINALS (IC6001- ㉚, ①, ㉒) DETECT IT, THEN FINALLY IC1001 WILL BE TURNED OFF. FORMULA OF BATTERY UNDER CUT DETECTION IS AS SHOWN BELOW.

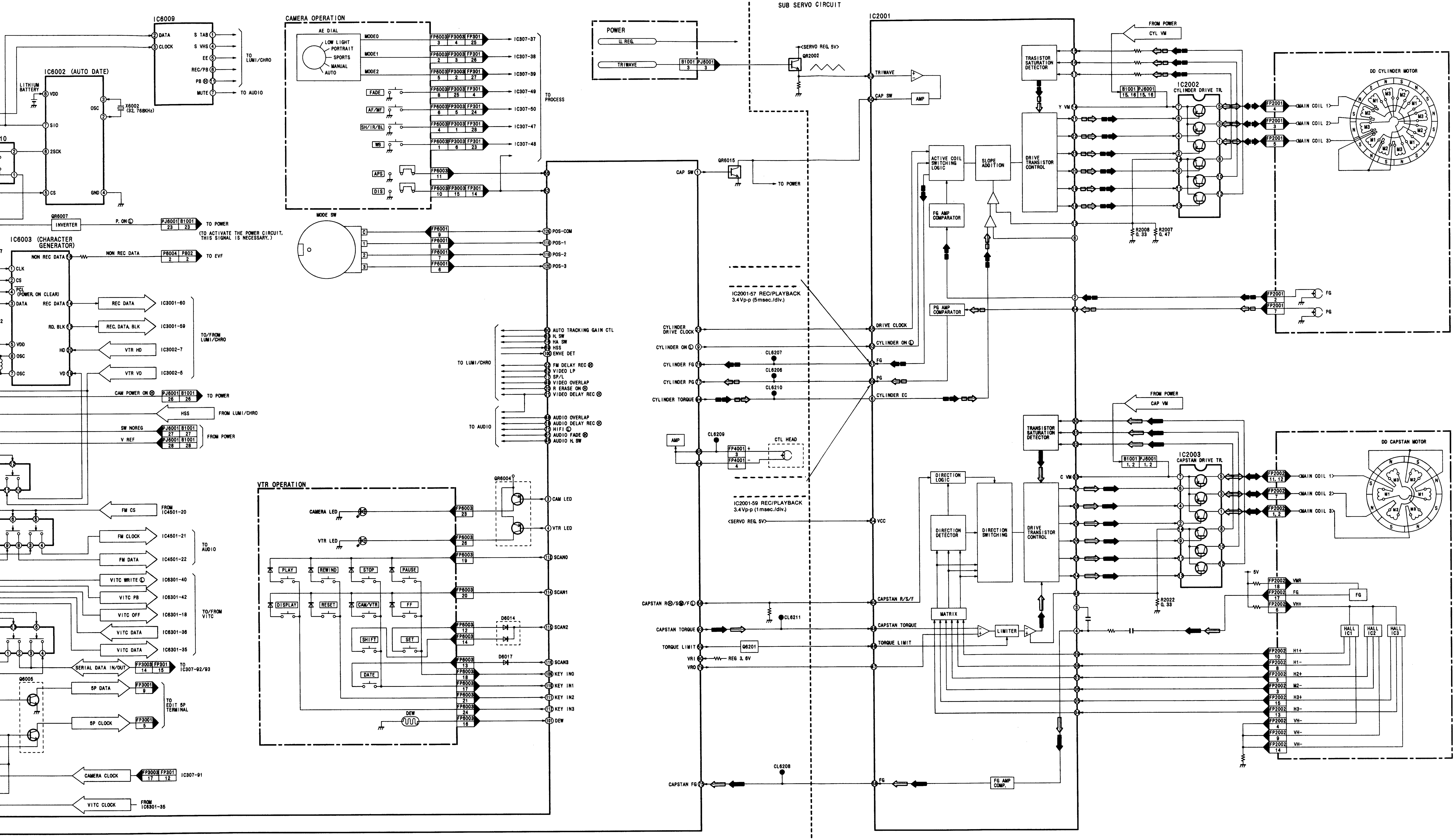
	REMAINING BATTERY VOLTAGE (IC6001-(98))			REFERENCE BATTERY VOLTAGE (IC6001-(99))	
NORMAL CONDITION	EXAMPLE	3. 35V	>	EXAMPLE	2. 49V
UNDERCUT		2. 49V	≦		2. 49V

Back Page:
LENS DRIVE Section

3-7. SYSTEM CONTROL & SERVO BLOCK DIAGRAM

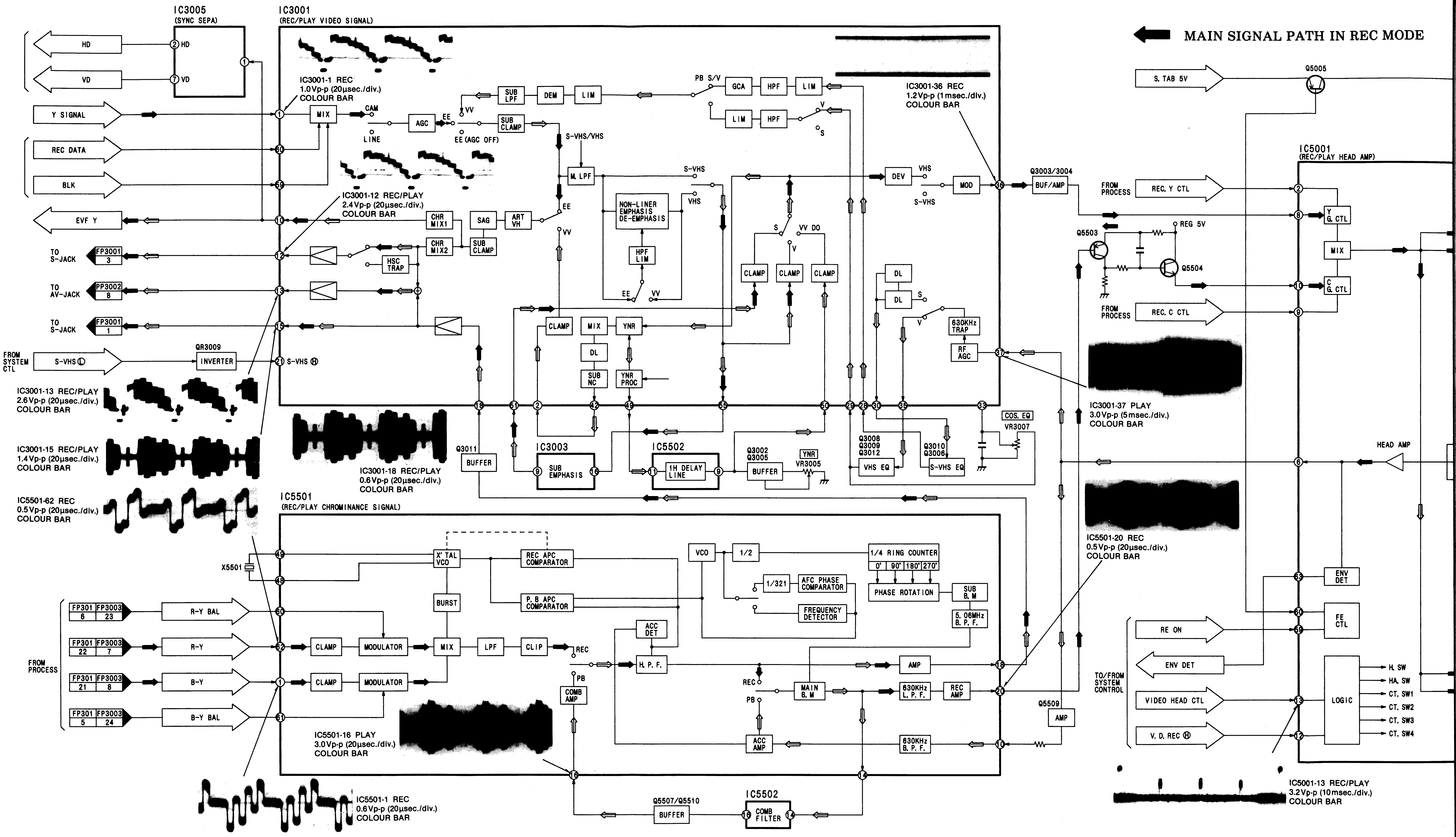

CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
SUB SERVO CIRCUIT
IC6001
IC6007 3.8V REG.
IC6008 RESET
FROM POWER BATTERY ADAPTOR
LI-BATTERY
QR6006
QR6014
CAM POWER
START/STOP SW
EJECT
EVF UNIT
IC6005 LOADING MOTOR DRIVE
LOADING MOTOR
CASSETTE DOWN SW
SENSOR LED
TAKE-UP PHOTO TR.
SUPPLY PHOTO TR.
TAKE-UP REEL PULSE SENSOR
TAKE-UP DRIVE GEAR MAGNET
IC6006
QR2001
QR6001
TO AUDIO LUMI/CHRO
S. TAB +5V
SAFETY TAB SW
EVF 5V
SW1301
VDD1
VDD2
RST
EXT DC DET.
LI-BATT
P. ON
S/S
EJECT
UNLOADING
LOADING
CASSETTE DOWN
SENSOR LED
TAPE END DETECTION
TAPE START DETECTION
TAKE-UP REEL PULSE
IC6001-104 PLAYBACK 3.5Vp-p (20msec./div.)
SUPPLY REEL PULSE
IC6001-105 3.5Vp-p (500msec./div.)
SAFETY TAB
AGS SENSOR
IC6001-38 STOP 3.5Vp-p (0.1μsec./div.)
OSC MAIN 16MHz
OSC SUB 32.768KHz
X6001
X6003
IC6002 (AUTO DATE)
LITHIUM BATTERY
X6002 (32.768KHz)
IC6010
AUTO DATE SEL
AUTO DATE CS
QR6007 INVERTER
IC6003 (CHARACTER GENERATOR)
CL6007
CL6212
CG AUTO DATE CLK
CG CS
PCL (POWER ON CG RESET)
S DATA OUT
S DATA IN
NON REC DATA
REC DATA
REC DATA BLK
VTR HD
VTR VD
TO EVF
TO POWER
(TO ACTIVATE THE POWER CIRCUIT, THIS SIGNAL IS NECESSARY.)
IC3001-60
IC3001-59
IC3002-7
IC3002-5
TO/FROM LUMI/CHRO
VTR VD
CAM P ON
CAM POWER ON
HSS
FROM LUMI/CHRO
UNDER-CUT DETECTION
BATT
BATT REF
SW NOREG
V REF
FROM POWER
VD ON
IC6004
FM CHIP SELECT
FM CS
FROM IC4501-20
FM CLOCK
FM DATA
IC4501-21
IC4501-22
TO AUDIO
VITC WRITE
VITC PB
VITC OFF
VITC DATA
IC6301-40
IC6301-42
IC6301-18
IC6301-36
IC6301-35
TO/FROM VITC
CAM SW
CAM REMOTO
EX DATA IN
EX DATA OUT
SERIAL DATA IN/OUT
TO IC307-92/93
Q6005
QR6010
5P DATA
5P CLOCK
TO EDIT 5P TERMINAL
EXT SERIAL CLOCK
5P SELECT
CAM SELECT
Q6004
Q6009
VITC SELECT
CAMERA CLOCK
IC307-91
VITC CLOCK
FROM IC6301-35
IC6009
DATA
CLOCK
S TAB
S VHS
EE
REC/PB
PB
MUTE
TO LUMI/CHRO
TO AUDIO
CAMERA OPERATION
AE DIAL
LOW LIGHT
PORTRAIT
SPORTS
MANUAL
AUTO
MODE0
MODE1
MODE2
FADE
AF/MF
SH/IR/BL
WB
APS
DIS
IC307-37
IC307-38
IC307-39
IC307-49
IC307-50
IC307-47
IC307-48
TO PROCESS
MODE SW
POS-COM
POS-1
POS-2
POS-3
TO LUMI/CHRO
AUTO TRACKING GAIN CTL
H. SW
HA SW
HSS
ENVE DET
FM DELAY REC
VIDEO LP
SP/L
VIDEO OVERLAP
R ERASE ON
VIDEO DELAY REC
TO AUDIO
AUDIO OVERLAP
AUDIO DELAY REC
HIFI
AUDIO FADE
AUDIO H. SW
VTR OPERATION
CAMERA LED
VTR LED
PLAY
REWIND
STOP
PAUSE
DISPLAY
RESET
CAM/VTR
FF
SHIFT
SET
DATE
DEW
QR6004
D6014
D6017
CAM LED
VTR LED
SCAN0
SCAN1
SCAN2
SCAN3
KEY IN0
KEY IN1
KEY IN2
KEY IN3
DEW
POWER
U. REG.
TRIWAVE
QR2002
SERVO REG. 5V
QR6015
CAP SW
TO POWER
IC2001
IC2001-57 REC/PLAYBACK 3.4Vp-p (5msec./div.)
IC2001-59 REC/PLAYBACK 3.4Vp-p (1msec./div.)
CYLINDER DRIVE CLOCK
CYLINDER ON
CYLINDER FG
CYLINDER PG
CYLINDER TORQUE
CL6207
CL6206
CL6210
CL6209
AMP
CTL HEAD
DRIVE CLOCK
CYLINDER ON
FG
PG
CYLINDER EC
VCC
CAPSTAN R/S/F
CAPSTAN TORQUE
TORQUE LIMIT
VRI
VRO
REG 3.6V
Q6201
CL6211
CL6208
CAPSTAN FG
FG

⬅ CAPSTAN SERVO SPEED LOOP ⇦ CAPSTAN SERVO PHASE LOOP ◀■ CYLINDER SERVO SPEED LOOP ◁□ CYLINDER SERVO PHASE LOOP


IC6009
IC6002 (AUTO DATE)
LITHIUM BATTERY
X6002 (32.768KHz)
IC6003 (CHARACTER GENERATOR)
QR6007 INVERTER
P. ON
TO POWER
(TO ACTIVATE THE POWER CIRCUIT, THIS SIGNAL IS NECESSARY.)
NON REC DATA
TO EVF
REC DATA
REC. DATA. BLK
VTR HD
VTR VD
TO/FROM LUMI/CHRO
CAM POWER ON
HSS
FROM LUMI/CHRO
SW NOREG
V REF
FROM POWER
FM CS
FM CLOCK
FM DATA
TO AUDIO
VITC WRITE
VITC PB
VITC OFF
VITC DATA
TO/FROM VITC
SERIAL DATA IN/OUT
5P DATA
5P CLOCK
TO EDIT 5P TERMINAL
CAMERA CLOCK
VITC CLOCK
S TAB
S VHS
EE
REC/PB
PB
MUTE
TO LUMI/CHRO
CAMERA OPERATION
AE DIAL
LOW LIGHT
PORTRAIT
SPORTS
MANUAL
AUTO
MODE0
MODE1
MODE2
FADE
AF/MF
SH/IR/BL
WB
APS
DIS
TO PROCESS
MODE SW
POS-COM
POS-1
POS-2
POS-3
AUTO TRACKING GAIN CTL
H. SW
HA SW
HSS
ENVE DET
FM DELAY REC
VIDEO LP
SP/L
VIDEO OVERLAP
R ERASE ON
VIDEO DELAY REC
AUDIO OVERLAP
AUDIO DELAY REC
HIFI
AUDIO FADE
AUDIO H. SW
VTR OPERATION
CAMERA LED
VTR LED
PLAY
REWIND
STOP
PAUSE
DISPLAY
RESET
CAM/VTR
FF
SHIFT
SET
DATE
DEW
QR6004
CAM LED
VTR LED
SCAN0
SCAN1
SCAN2
SCAN3
KEY IN0
KEY IN1
KEY IN2
KEY IN3
D6014
D6017
POWER
U. REG.
TRIWAVE
QR6015
CAP SW
TO POWER
SUB SERVO CIRCUIT
SERVO REG. 5V
QR2002
IC2001-57 REC/PLAYBACK 3.4Vp-p (5msec./div.)
IC2001-59 REC/PLAYBACK 3.4Vp-p (1msec./div.)
CYLINDER DRIVE CLOCK
CYLINDER ON
CYLINDER FG
CYLINDER PG
CYLINDER TORQUE
CL6207
CL6206
CL6210
CL6209
CTL HEAD
AMP
CAPSTAN R/S/F
CAPSTAN TORQUE
TORQUE LIMIT
Q6201
CL6211
VRI
VRO
REG. 3.6V
CAPSTAN FG
CL6208
IC2001
TRIWAVE
CAP SW
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
FG AMP COMPARATOR
PG AMP COMPARATOR
DRIVE CLOCK
FG
PG
CYLINDER EC
VCC
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
MATRIX
LIMITER
FG AMP COMP.
TRASISTOR SATURATION DETECTOR
DRIVE TRANSISTOR CONTROL
FROM POWER
CYL VM
IC2002 CYLINDER DRIVE TR.
R2008 0.33
R2007 0.47
DD CYLINDER MOTOR
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
TRANSISTOR SATURATION DETECTOR
FROM POWER
CAP VM
IC2003 CAPSTAN DRIVE TR.
R2022 0.33
DD CAPSTAN MOTOR
HALL IC1
HALL IC2
HALL IC3
VMR
VH+
H1+
H1-
H2+
M2-
H3+
H3-
VH-

Next Page:
LUMI/CHRO & HA Section

3-8. LUMINANCE/CHROMINANCE & HEAD AMP BLOCK DIAGRAM


MAIN SIGNAL PATH IN REC MODE
IC3005
(SYNC SEPA)
HD
VD
IC3001
(REC/PLAY VIDEO SIGNAL)
Y SIGNAL
REC DATA
BLK
EVF Y
TO S-JACK
FP3001 3
TO AV-JACK
PP3002 8
TO S-JACK
FP3001 1
FROM SYSTEM CTL
S-VHS Ⓛ
QR3009
INVERTER
S-VHS Ⓗ
MIX
CAM
LINE
AGC
EE
EE (AGC OFF)
VV
SUB LPF
DEM
LIM
SUB CLAMP
S-VHS/VHS
PB S/V
GCA
HPF
LIM
V
S
M. LPF
S-VHS
NON-LINER EMPHASIS DE-EMPHASIS
VHS
HPF LIM
EE
VV
S
VV DO
CLAMP
CLAMP
CLAMP
DEV
VHS
S-VHS
MOD
DL
DL
630KHz TRAP
RF AGC
CHR MIX1
CHR MIX2
SAG
ART VH
SUB CLAMP
HSC TRAP
CLAMP
MIX
YNR
DL
SUB NC
YNR PROC
Q3011
BUFFER
IC3003
SUB EMPHASIS
IC5502
1H DELAY LINE
Q3002 Q3005
BUFFER
YNR
VR3005
Q3008 Q3009 Q3012
VHS EQ
Q3010 Q3006
S-VHS EQ
COS. EQ
VR3007
Q3003/3004
BUF/AMP
IC5501
(REC/PLAY CHROMINANCE SIGNAL)
X5501
X'TAL VCO
REC APC COMPARATOR
P. B APC COMPARATOR
BURST
FROM PROCESS
FP301 6 FP3003 23
R-Y BAL
FP301 22 FP3003 7
R-Y
FP301 21 FP3003 8
B-Y
FP301 5 FP3003 24
B-Y BAL
CLAMP
MODULATOR
CLAMP
MODULATOR
MIX
LPF
CLIP
REC
PB
COMB AMP
ACC DET
H. P. F.
VCO
1/2
1/321
AFC PHASE COMPARATOR
FREQUENCY DETECTOR
1/4 RING COUNTER
0° 90° 180° 270°
PHASE ROTATION
SUB B. M
5. 06MHz B. P. F.
AMP
REC
PB
MAIN B. M
630KHz L. P. F.
REC AMP
ACC AMP
630KHz B. P. F.
Q5509
AMP
Q5507/Q5510
BUFFER
IC5502
COMB FILTER
S. TAB 5V
Q5005
IC5001
(REC/PLAY HEAD AMP)
FROM PROCESS
REC. Y CTL
Q5503
REG 5V
Q5504
FROM PROCESS
REC. C CTL
Y G. CTL
MIX
C G. CTL
HEAD AMP
ENV DET
FE CTL
TO/FROM SYSTEM CONTROL
RE ON
ENV DET
VIDEO HEAD CTL
V. D. REC Ⓗ
LOGIC
H. SW
HA. SW
CT. SW1
CT. SW2
CT. SW3
CT. SW4

IC3001-1 REC
1.0Vp-p (20µsec./div.)
COLOUR BAR

IC3001-12 REC/PLAY
2.4Vp-p (20µsec./div.)
COLOUR BAR

IC3001-36 REC
1.2Vp-p (1msec./div.)
COLOUR BAR

IC3001-13 REC/PLAY
2.6Vp-p (20µsec./div.)
COLOUR BAR

IC3001-15 REC/PLAY
1.4Vp-p (20µsec./div.)
COLOUR BAR

IC5501-62 REC
0.5Vp-p (20µsec./div.)
COLOUR BAR

IC3001-18 REC/PLAY
0.6Vp-p (20µsec./div.)
COLOUR BAR

IC3001-37 PLAY
3.0Vp-p (5msec./div.)
COLOUR BAR

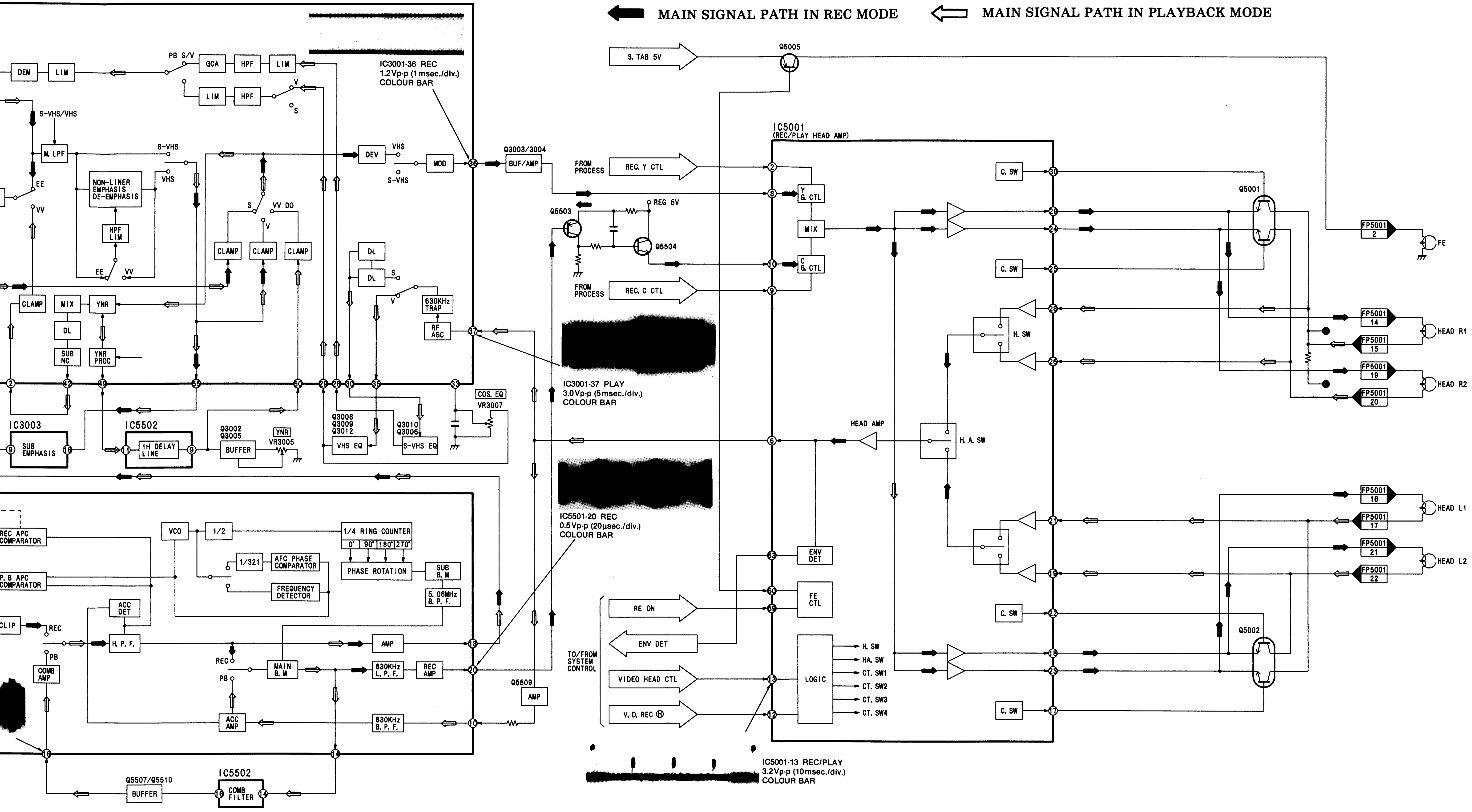
IC5501-20 REC
0.5Vp-p (20µsec./div.)
COLOUR BAR

IC5501-16 PLAY
3.0Vp-p (20µsec./div.)
COLOUR BAR

IC5501-1 REC
0.6Vp-p (20µsec./div.)
COLOUR BAR

IC5001-13 REC/PLAY
3.2Vp-p (10msec./div.)
COLOUR BAR

DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
DEM
LIM
PB S/V
GCA
HPF
LIM
LIM
HPF
V
S
S-VHS/VHS
M. LPF
S-VHS
VHS
NON-LINER EMPHASIS DE-EMPHASIS
HPF LIM
EE
VV
EE
VV
DEV
VHS
S-VHS
MOD
S
VV DO
V
CLAMP
CLAMP
CLAMP
DL
DL
S
V
630KHz TRAP
RF AGC
CLAMP
MIX
YNR
DL
SUB NC
YNR PROC
2
42
49
55
50
29
28
30
36
33
36
37
COS. EQ
VR3007
IC3003
SUB EMPHASIS
9
16
IC5502
11
1H DELAY LINE
9
Q3002
Q3005
BUFFER
YNR
VR3005
Q3008
Q3009
Q3012
VHS EQ
Q3010
Q3006
S-VHS EQ
Q3003/3004
BUF/AMP
S. TAB 5V
Q5005
FROM PROCESS
REC. Y CTL
REG 5V
Q5503
Q5504
FROM PROCESS
REC. C CTL
IC5001
(REC/PLAY HEAD AMP)
2
8
10
9
Y G. CTL
MIX
C G. CTL
C. SW
30
29
24
25
C. SW
28
26
H. SW
Q5001
FP5001 2
FE
FP5001 14
FP5001 15
HEAD R1
FP5001 19
FP5001 20
HEAD R2
HEAD AMP
6
H. A. SW
21
19
FP5001 16
FP5001 17
HEAD L1
FP5001 21
FP5001 22
HEAD L2
C. SW
22
Q5002
18
23
C. SW
17
63
ENV DET
60
59
FE CTL
13
12
LOGIC
H. SW
HA. SW
CT. SW1
CT. SW2
CT. SW3
CT. SW4
RE ON
ENV DET
TO/FROM SYSTEM CONTROL
VIDEO HEAD CTL
V. D. REC Ⓗ
REC APC COMPARATOR
P. B APC COMPARATOR
VCO
1/2
1/4 RING COUNTER
0°
90°
180°
270°
1/321
AFC PHASE COMPARATOR
FREQUENCY DETECTOR
PHASE ROTATION
SUB B. M
5. 06MHz B. P. F.
ACC DET
CLIP
REC
H. P. F.
AMP
18
REC
PB
COMB AMP
MAIN B. M
630KHz L. P. F.
REC AMP
20
Q5509
AMP
ACC AMP
630KHz B. P. F.
10
16
14
Q5507/Q5510
BUFFER
IC5502
16
COMB FILTER
14

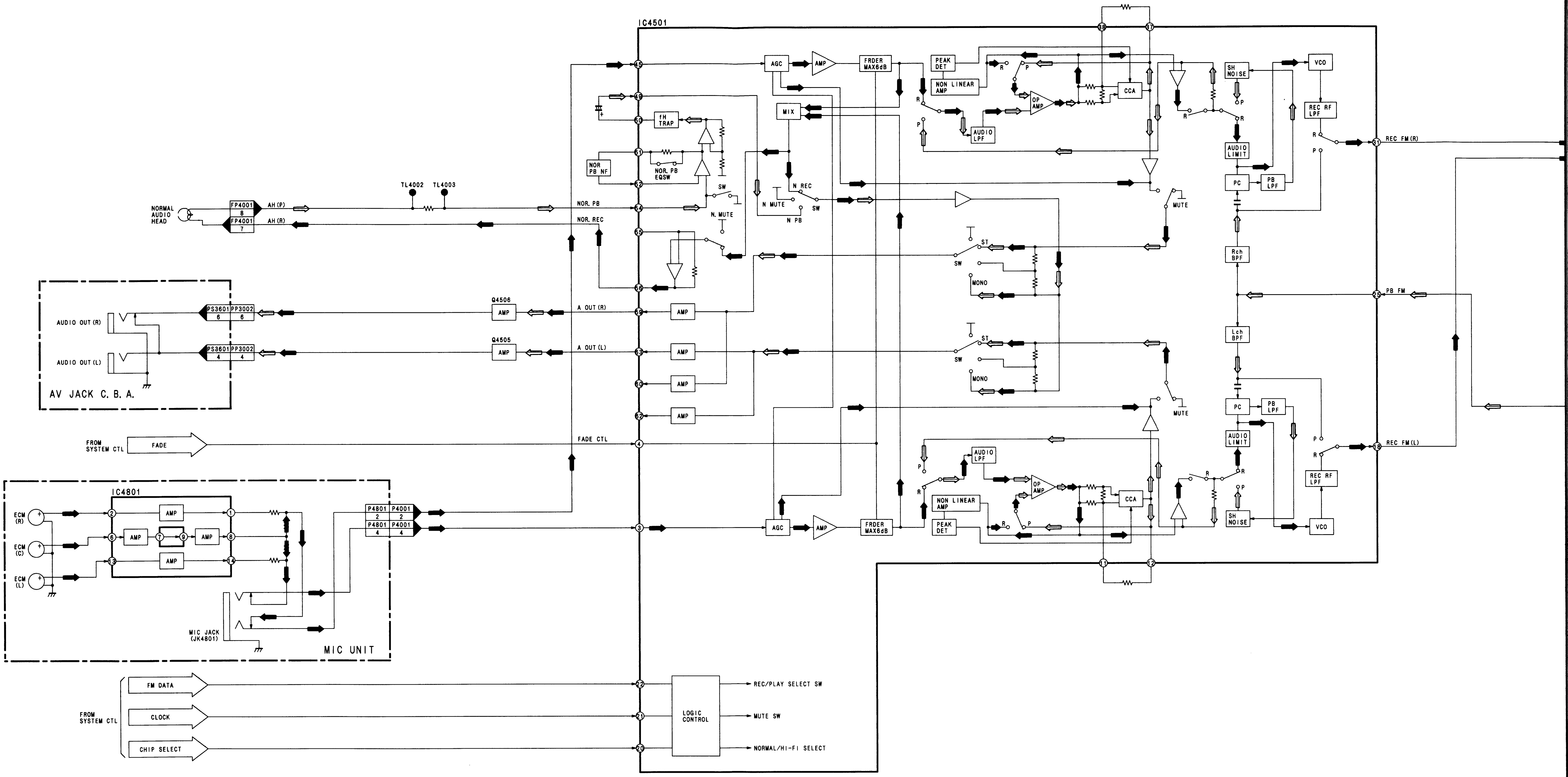
IC3001-36 REC
1.2Vp-p (1msec./div.)
COLOUR BAR

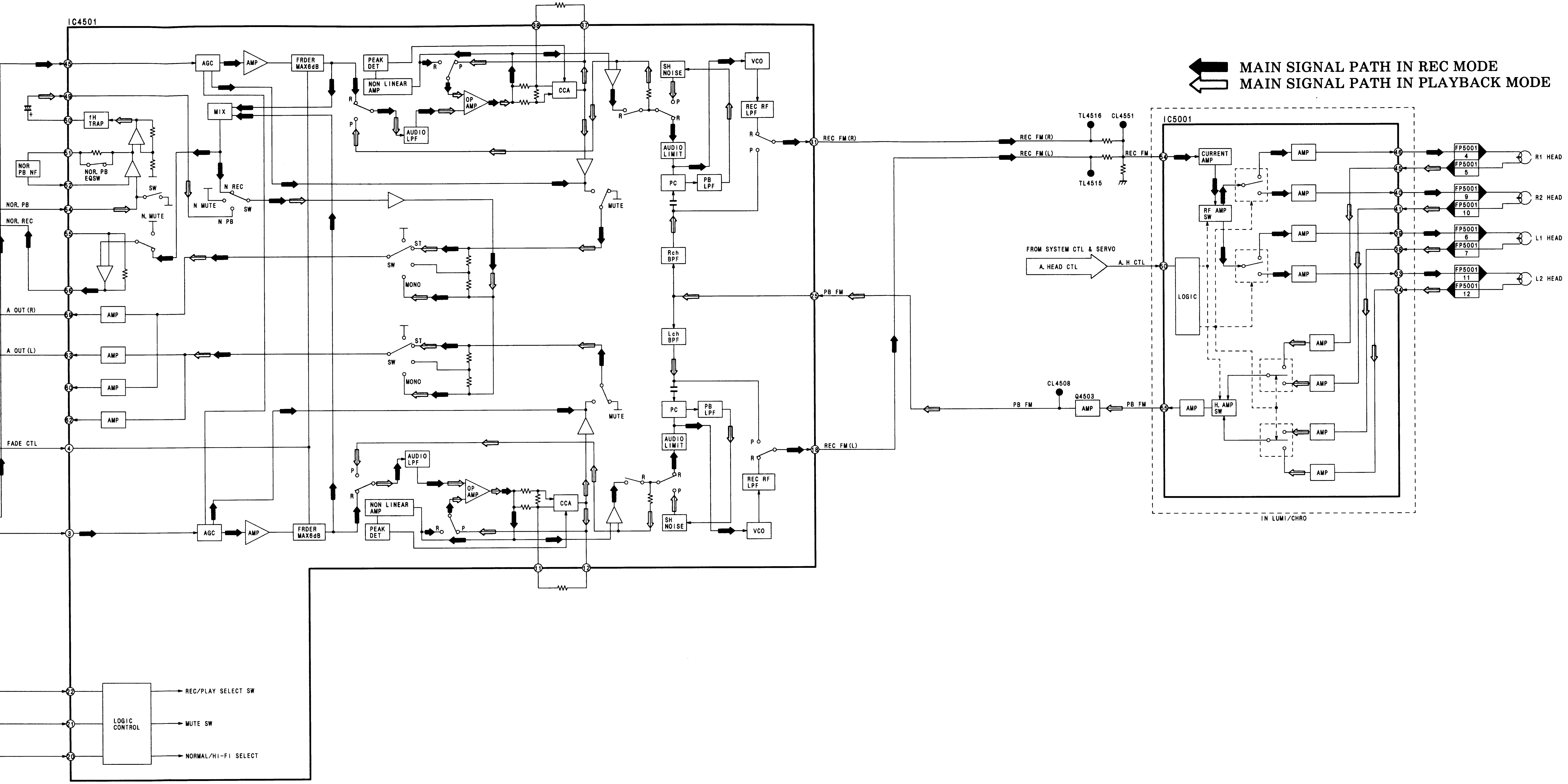
IC3001-37 PLAY
3.0Vp-p (5msec./div.)
COLOUR BAR

IC5501-20 REC
0.5Vp-p (20μsec./div.)
COLOUR BAR

IC5001-13 REC/PLAY
3.2Vp-p (10msec./div.)
COLOUR BAR

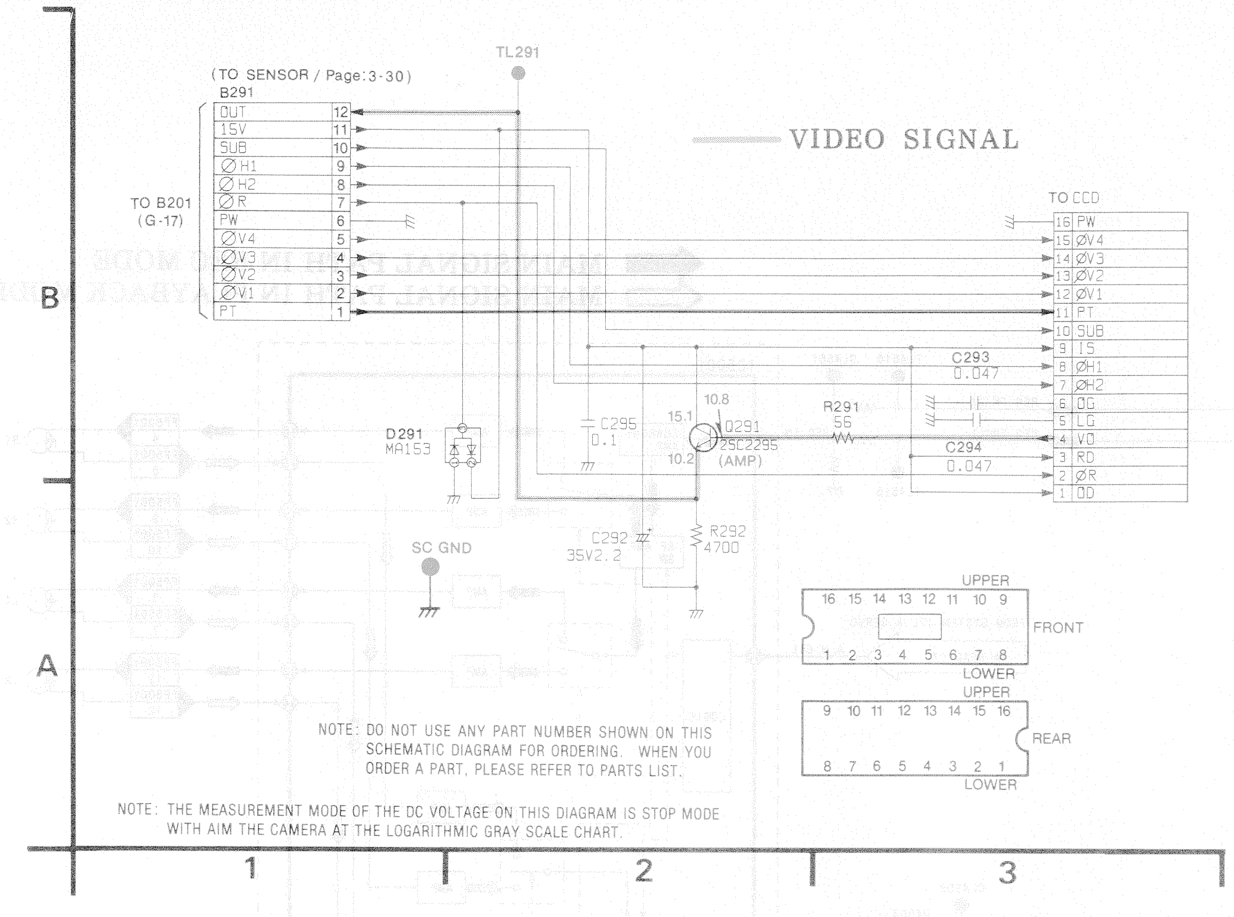
3-9. AUDIO BLOCK DIAGRAM


IC4501
AGC
AMP
FRDER MAX6dB
PEAK DET
NON LINEAR AMP
OP AMP
AUDIO LPF
CCA
SH NOISE
VCO
REC RF LPF
AUDIO LIMIT
PC
PB LPF
Rch BPF
Lch BPF
MIX
fH TRAP
NOR PB NF
NOR. PB EQSW
SW
N. MUTE
N REC
N MUTE
N PB
MUTE
ST
MONO
R
P
REC FM (R)
PB FM
REC FM (L)
NORMAL AUDIO HEAD
FP4001 8
FP4001 7
AH (P)
AH (R)
TL4002
TL4003
NOR. PB
NOR. REC
AUDIO OUT (R)
AUDIO OUT (L)
PS3601 PP3002 6 6
PS3601 PP3002 4 4
AV JACK C. B. A.
Q4506
Q4505
A OUT (R)
A OUT (L)
FROM SYSTEM CTL
FADE
FADE CTL
IC4801
ECM (R)
ECM (C)
ECM (L)
P4801 P4001 2 2
P4801 P4001 4 4
MIC JACK (JK4801)
MIC UNIT
FM DATA
CLOCK
CHIP SELECT
LOGIC CONTROL
REC/PLAY SELECT SW
MUTE SW
NORMAL/HI-FI SELECT
46
49
50
51
52
54
55
56
59
63
60
62
4
3
22
21
20
38
37
31
25
18
11
12
2
6
13
1
8
14
7
9


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
IC4501
AGC
AMP
FRDER MAX6dB
PEAK DET
NON LINEAR AMP
AUDIO LPF
OP AMP
CCA
MIX
fH TRAP
NOR PB NF
NOR. PB EQSW
SW
N. MUTE
N MUTE
N REC
N PB
NOR. PB
NOR. REC
ST
MONO
MUTE
SH NOISE
AUDIO LIMIT
PC
PB LPF
VCO
REC RF LPF
Rch BPF
Lch BPF
REC FM (R)
REC FM (L)
PB FM
A OUT (R)
A OUT (L)
FADE CTL
LOGIC CONTROL
REC/PLAY SELECT SW
MUTE SW
NORMAL/HI-FI SELECT
TL4516
CL4551
TL4515
REC FM
IC5001
CURRENT AMP
RF AMP SW
LOGIC
H. AMP SW
FROM SYSTEM CTL & SERVO
A. HEAD CTL
A. H CTL
CL4508
Q4503
IN LUMI/CHRO
FP5001
R1 HEAD
R2 HEAD
L1 HEAD
L2 HEAD

Next Page:
CCD FLEX. CARRD, AWT SENSOR,
IR REMOTE CTL & MF SENSOR Section

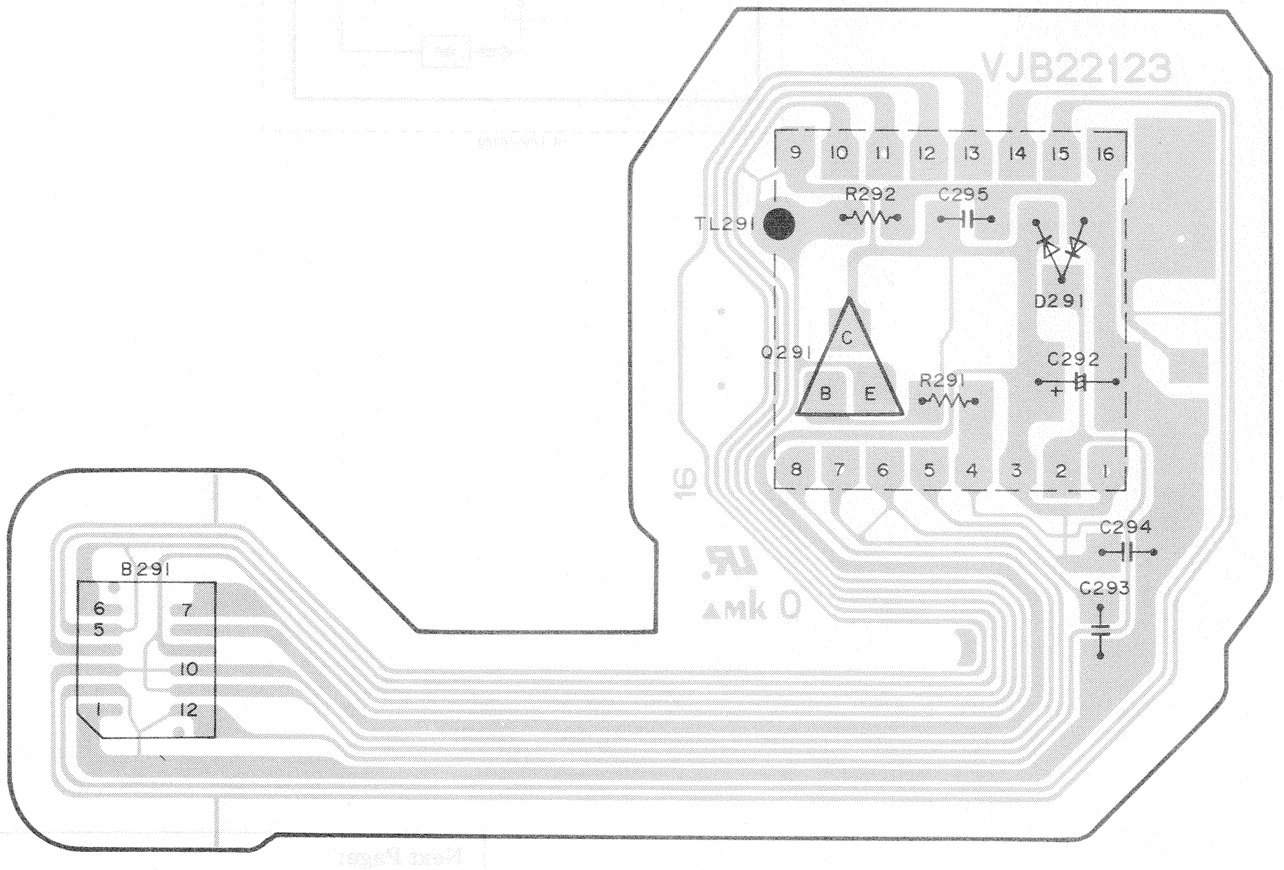
3-10. CCD FLEXIBLE CARD SCHEMATIC DIAGRAM


TL291
(TO SENSOR / Page:3-30)
B291
OUT 12
15V 11
SUB 10
ØH1 9
ØH2 8
ØR 7
PW 6
ØV4 5
ØV3 4
ØV2 3
ØV1 2
PT 1
TO B201 (G-17)
VIDEO SIGNAL
TO CCD
16 PW
15 ØV4
14 ØV3
13 ØV2
12 ØV1
11 PT
10 SUB
9 IS
8 ØH1
7 ØH2
6 OG
5 LG
4 VO
3 RD
2 ØR
1 OD
C293 0.047
C294 0.047
R291 56
Q291 2SC2295 (AMP)
15.1
10.8
10.2
C295 0.1
D291 MA153
C292 35V2.2
R292 4700
SC GND
UPPER
16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
FRONT
LOWER
UPPER
9 10 11 12 13 14 15 16
8 7 6 5 4 3 2 1
REAR
LOWER
B
A
1
2
3

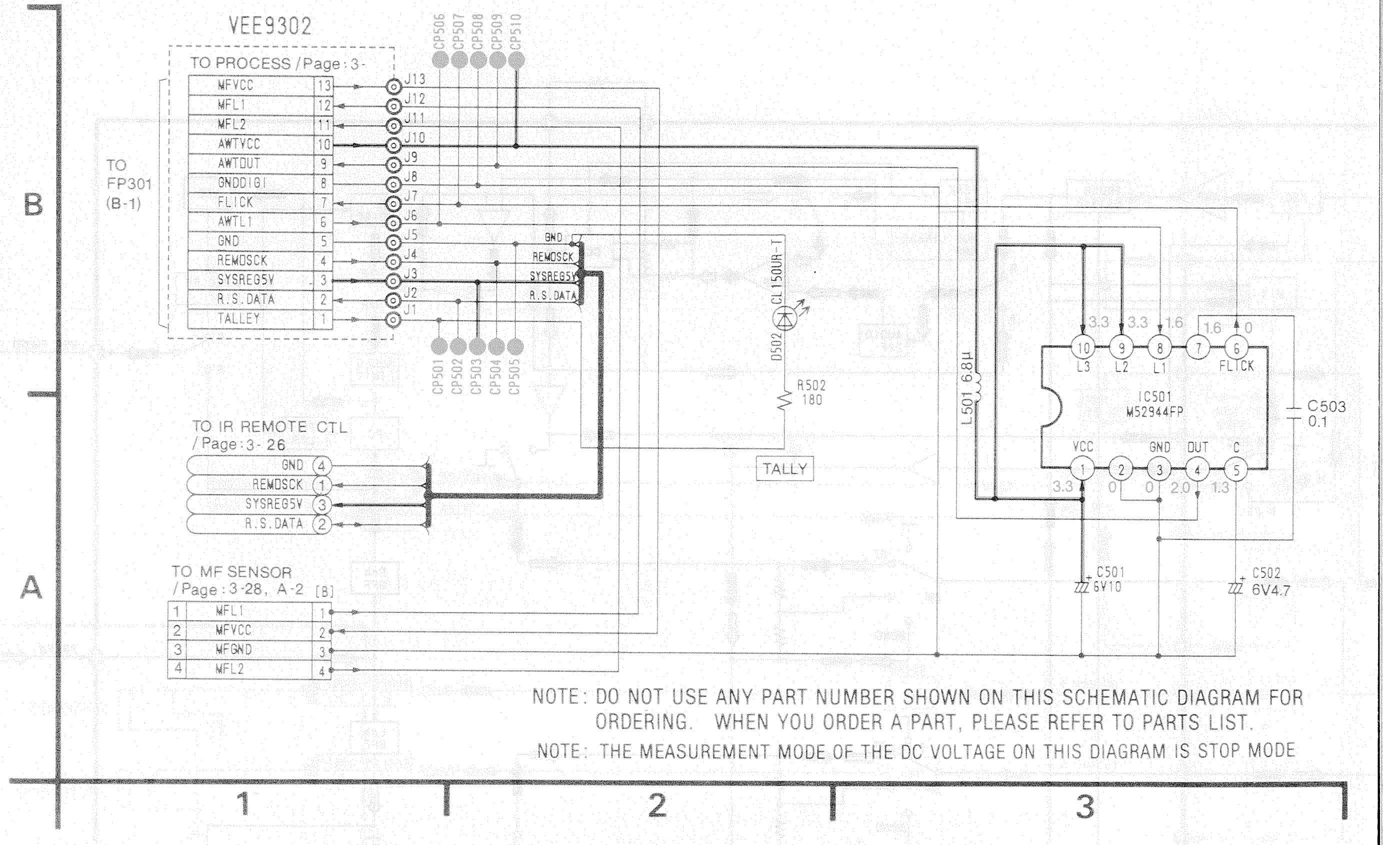
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

3-11. CCD FLEXIBLE CARD C.B.A. (VEP22123D)


VJB22123
9 10 11 12 13 14 15 16
TL291
R292
C295
D291
Q291
C
B E
R291
C292
8 7 6 5 4 3 2 1
16
C294
C293
B291
6
5
7
10
1
12

3-12. AWT SENSOR SCHEMATIC DIAGRAM

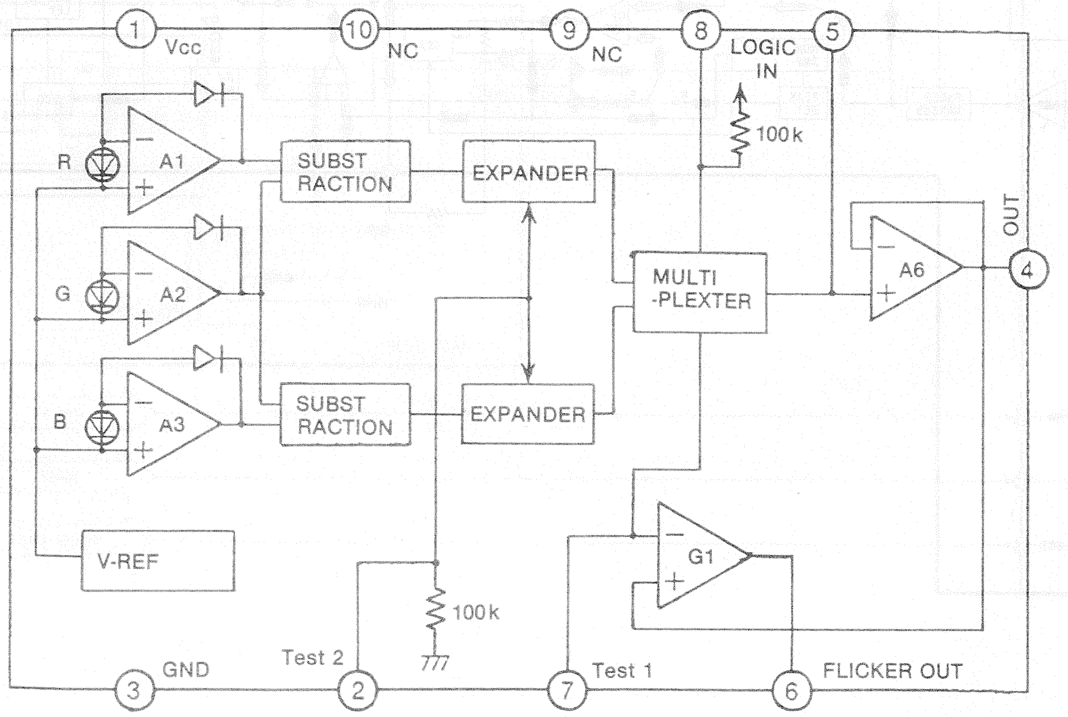

VEE9302
TO PROCESS / Page: 3-
TO FP301 (B-1)
MFVCC 13
MFL1 12
MFL2 11
AWTVCC 10
AWTOUT 9
GNDDIGI 8
FLICK 7
AWTL1 6
GND 5
REMOSCK 4
SYSREG5V 3
R.S.DATA 2
TALLEY 1
J13
J12
J11
J10
J9
J8
J7
J6
J5
J4
J3
J2
J1
CP506
CP507
CP508
CP509
CP510
CP501
CP502
CP503
CP504
CP505
GND
REMOSCK
SYSREG5V
R.S.DATA
D502 CL150UR-T
R502 180
TALLY
L501 6.8μH
TO IR REMOTE CTL / Page: 3-26
GND 4
REMOSCK 1
SYSREG5V 3
R.S.DATA 2
TO MF SENSOR / Page: 3-28, A-2 [B]
1 MFL1 1
2 MFVCC 2
3 MFGND 3
4 MFL2 4
IC501 M52944FP
10 L3
9 L2
8 L1
7
6 FLICK
1 VCC
2
3 GND
4 OUT
5 C
3.3
3.3
1.6
1.6
0
3.3
0
0
2.0
1.3
C503 0.1
C501 6V10
C502 6V4.7
B
A
1
2
3

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

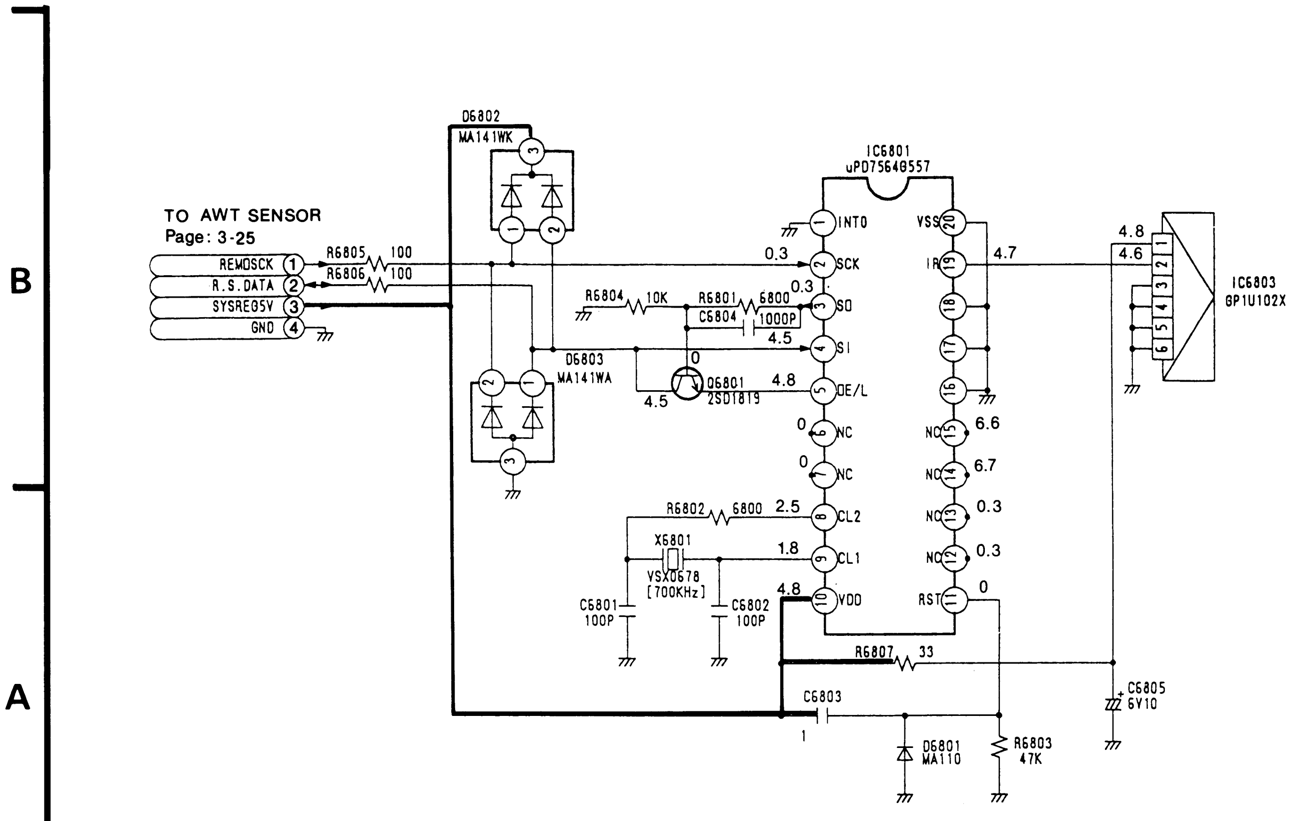
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE

IC BLOCK

IC501 (M52944FP)
(LOCATION: A-3)


1 Vcc
10 NC
9 NC
8 LOGIC IN
5
100k
R
G
B
A1
A2
A3
SUBST RACTION
SUBST RACTION
EXPANDER
EXPANDER
MULTI -PLEXTER
A6
OUT
4
V-REF
100k
G1
3 GND
Test 2 2
7 Test 1
6 FLICKER OUT

3-13. IR REMOTE CONTROL SCHEMATIC DIAGRAM

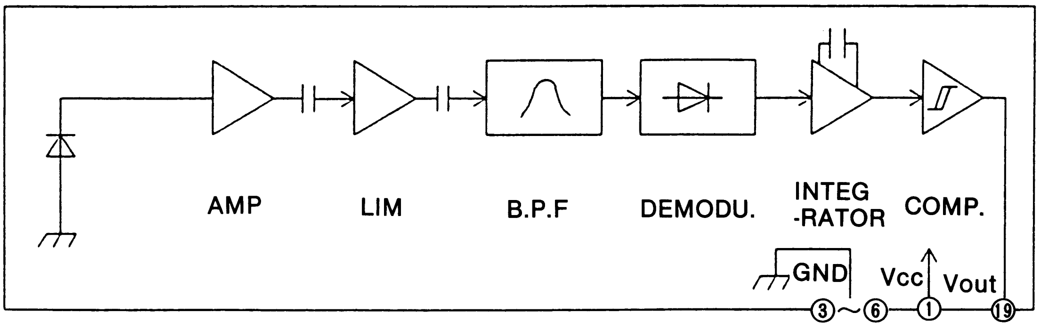

B
A
TO AWT SENSOR
Page: 3-25
REMOSCK ①
R.S.DATA ②
SYSREG5V ③
GND ④
R6805 100
R6806 100
D6802
MA141WK
D6803
MA141WA
R6804 10K
R6801 6800
C6804 1000P
Q6801
2SD1819
IC6801
uPD75648557
INTO
SCK
SO
SI
OE/L
NC
CL2
CL1
VDD
VSS
IR
RST
R6802 6800
X6801
VSX0678
[700KHz]
C6801 100P
C6802 100P
R6807 33
C6803 1
D6801 MA110
R6803 47K
C6805 6V10
IC6803
GP1U102X
0.3
4.5
4.8
4.7
4.6
6.6
6.7
2.5
1.8
0

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

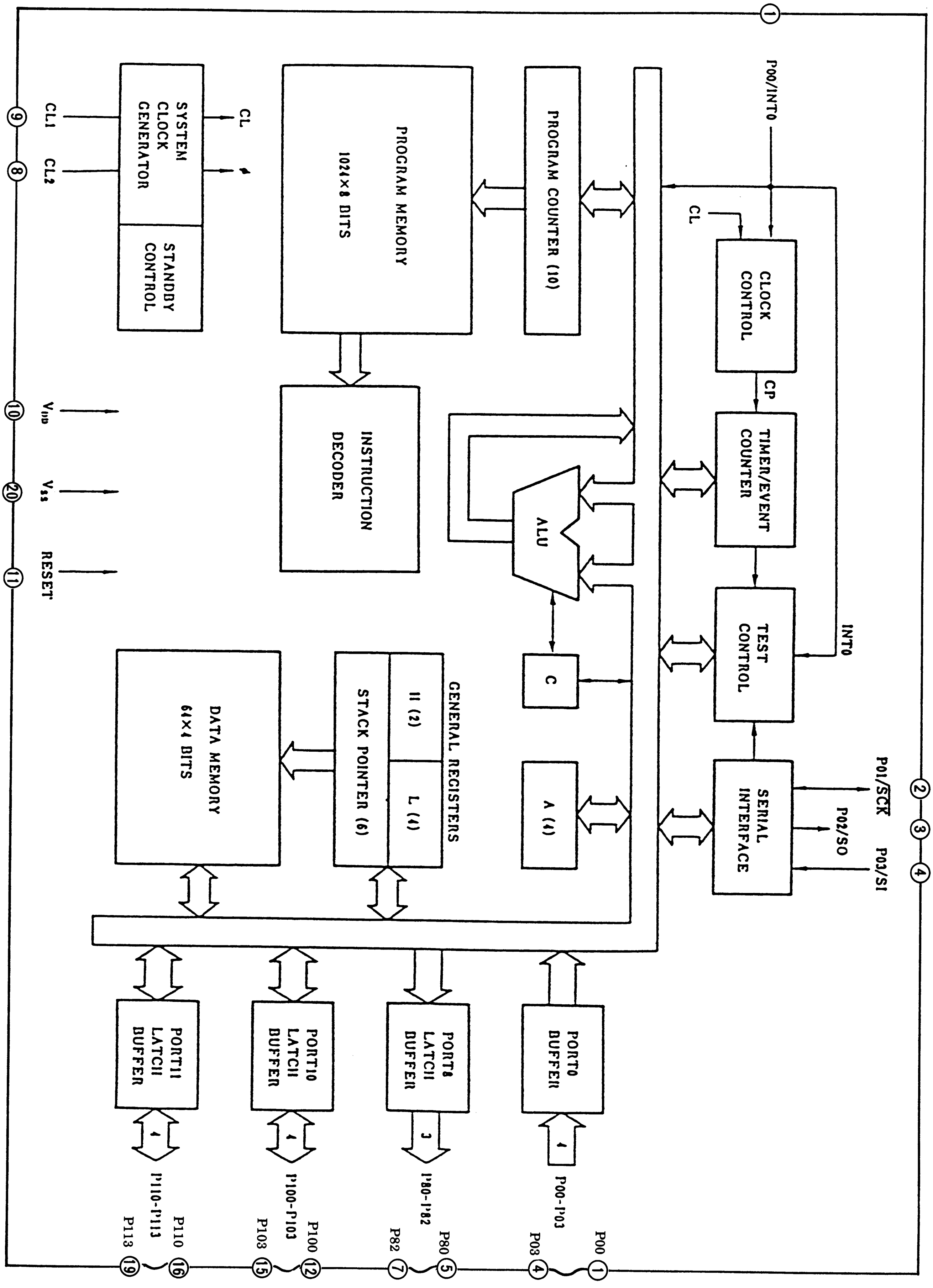
1
2
3

IC BLOCK

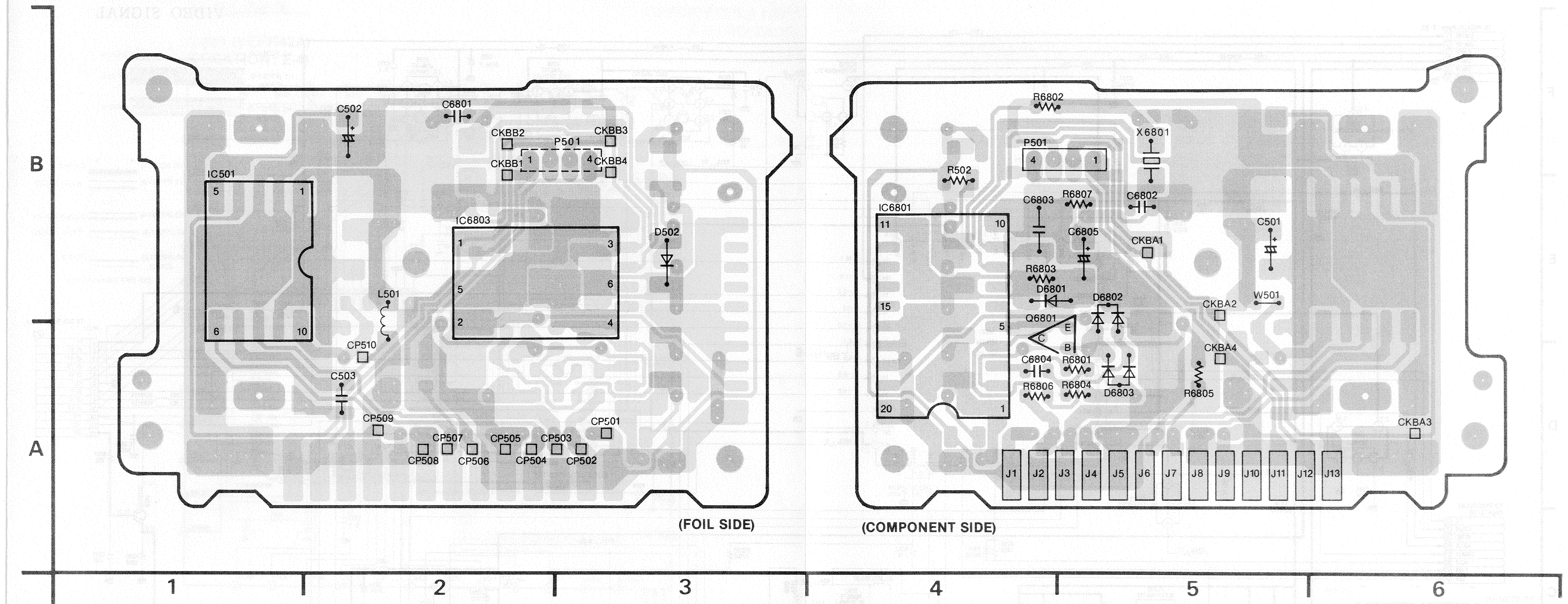
IC6803 (GP1U102X)
(LOCATION: B-3)


AMP
LIM
B.P.F
DEMODU.
INTEG
-RATOR
COMP.
GND
Vcc
Vout
③~⑥
①
⑲

IC6801 (µPD7564G557)
(LOCATION: B-3)


①
P00/INT0
CL
CLOCK CONTROL
CP
TIMER/EVENT COUNTER
TEST CONTROL
INT0
SERIAL INTERFACE
P01/SCK
P02/SO
P03/SI
②
③
④
PROGRAM COUNTER (10)
PROGRAM MEMORY
1024×8 BITS
SYSTEM CLOCK GENERATOR
STANDBY CONTROL
CL
Φ
CL1
CL2
⑨
⑧
VDD
VSS
RESET
⑩
⑳
⑪
INSTRUCTION DECODER
ALU
C
A (4)
GENERAL REGISTERS
H (2)
L (4)
STACK POINTER (6)
DATA MEMORY
64×4 BITS
PORT0 BUFFER
PORT8 LATCH BUFFER
PORT10 LATCH BUFFER
PORT11 LATCH BUFFER
4
3
4
4
P00-P03
P80-P82
P100-P103
P110-P113
P00
P03
P80
P82
P100
P103
P110
P113
①
④
⑤
⑦
⑫
⑮
⑯
⑲

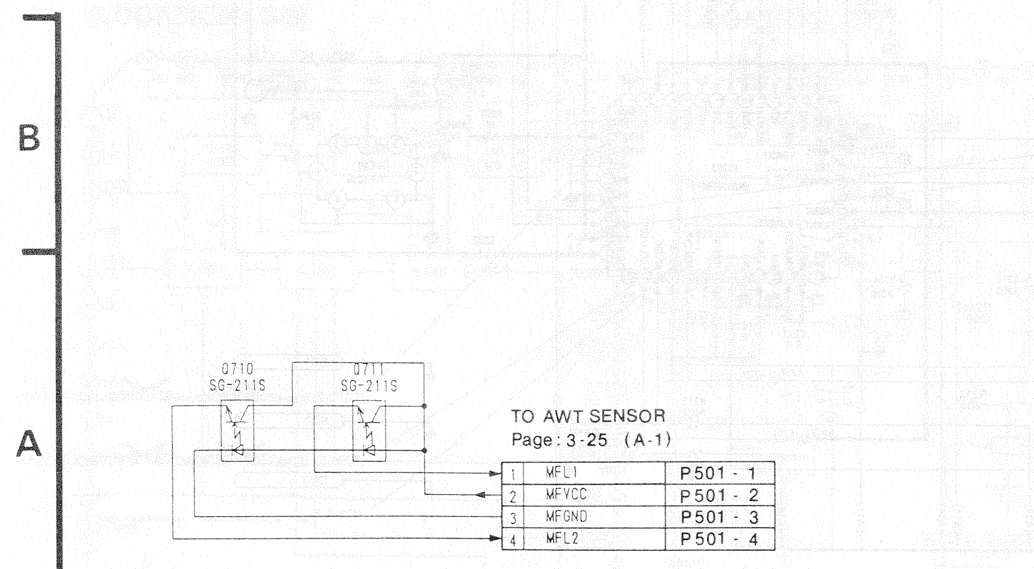
3-14. AWT SENSOR & IR REMOTE CONTROL C.B.A. (VEP23271A)


B
A
1
2
3
4
5
6
C502
C6801
CKBB2
P501
CKBB3
CKBB1
CKBB4
IC501
IC6803
D502
L501
CP510
C503
CP509
CP507
CP505
CP503
CP501
CP508
CP506
CP504
CP502
(FOIL SIDE)
R6802
X6801
R502
IC6801
C6803
R6807
C6802
C6805
C501
CKBA1
R6803
D6801
D6802
W501
Q6801
CKBA2
C6804
R6801
CKBA4
R6806
R6804
D6803
R6805
CKBA3
J1
J2
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
J13
(COMPONENT SIDE)

AWT C.B.A.	
Transistor	
Q6801	A-4
Integrated Circuit	
IC501	B-1
IC6801	B-4
IC6803	B-2
Connector	
P501	B-3
P501	B-4

ADDRESS INFORMATION

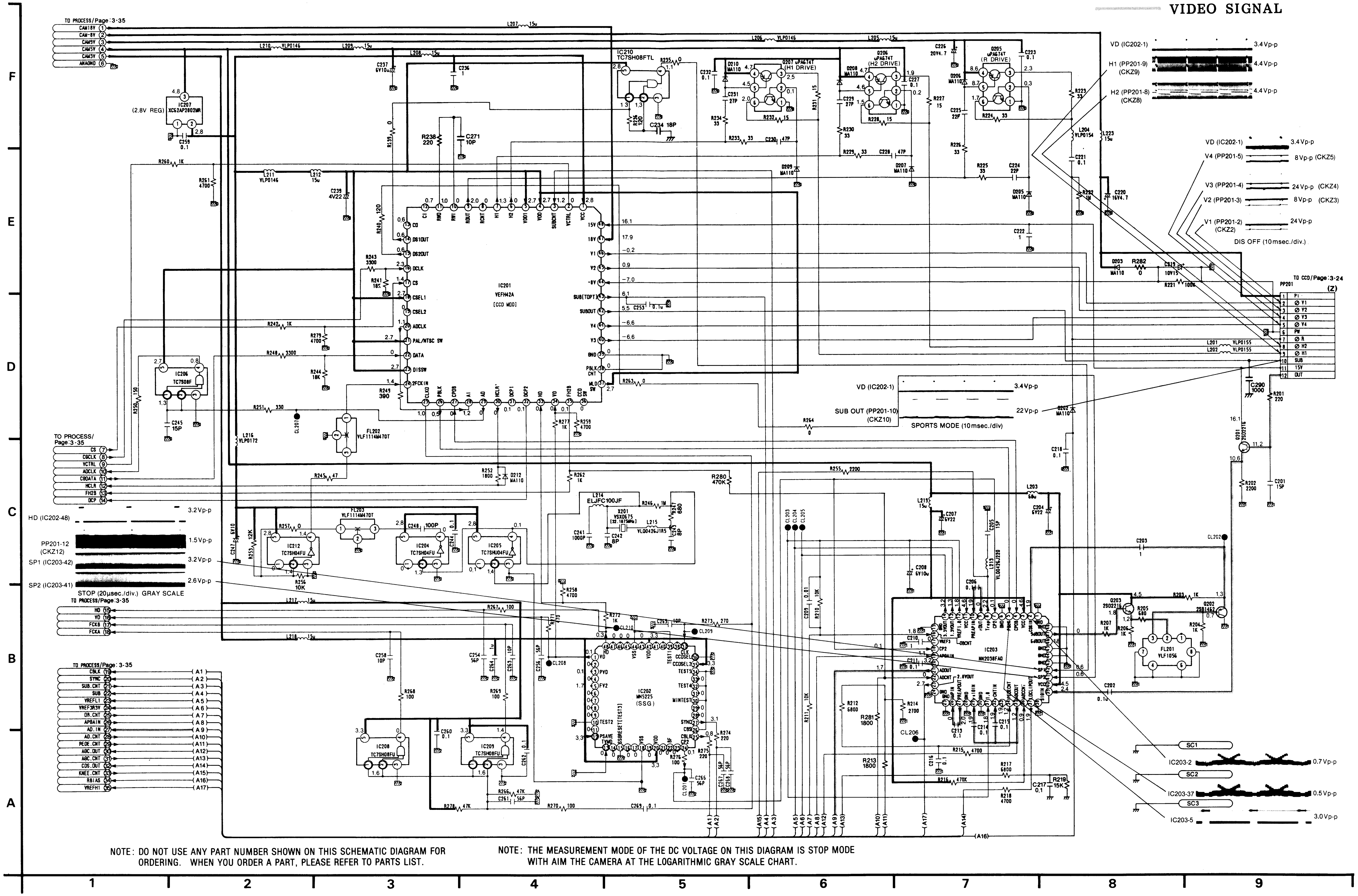
3-15. MF SENSOR SCHEMATIC DIAGRAM


B
A
Q710
SG-211S
Q711
SG-211S
TO AWT SENSOR
Page: 3-25 (A-1)
1
MFL1
P501 - 1
2
MFVCC
P501 - 2
3
MFGND
P501 - 3
4
MFL2
P501 - 4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
SENSOR Section

3-16. SENSOR SCHEMATIC DIAGRAM

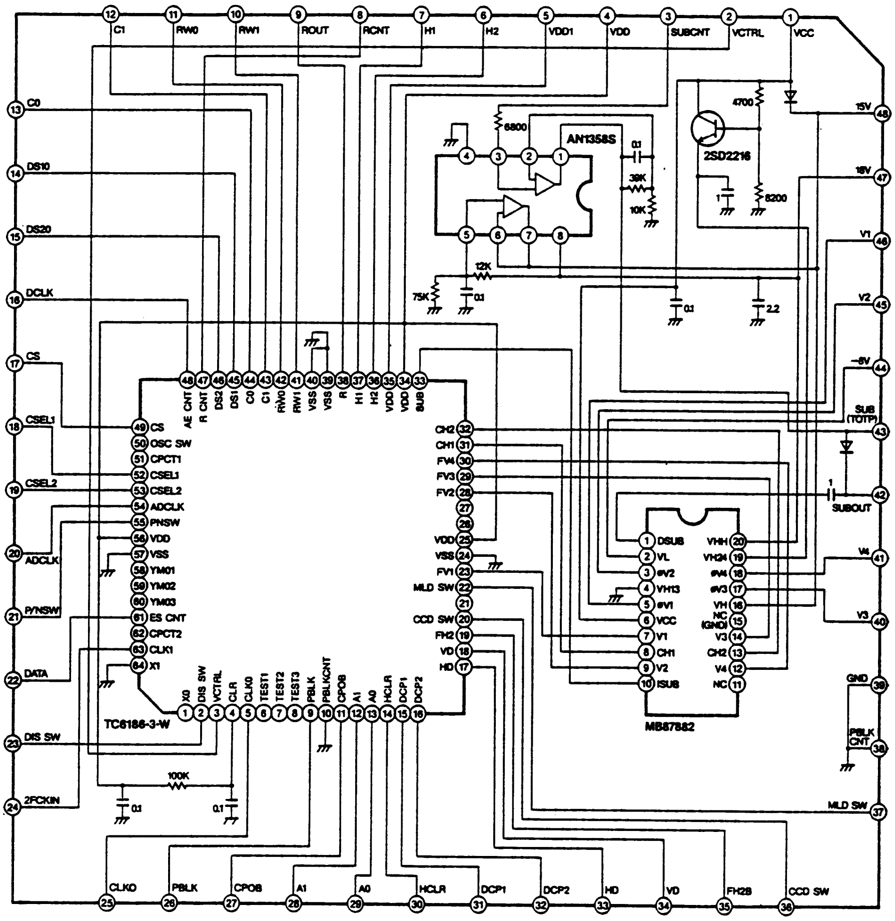

VIDEO SIGNAL
TO PROCESS/Page:3-35
CAM1BY ①
CAM-BY ②
CAMSY ③
CAMSY ④
CAM3Y ⑤
ANAGND ⑥
IC207 XC62AP2802MR
(2.8V REG)
IC210 TC7SH08FTL
Q207 uPA674T (H1 DRIVE)
Q206 uPA674T (H2 DRIVE)
Q205 uPA674T (R DRIVE)
IC201 YEFH42A [CCD MOD]
IC206 TC7S08F
FL202 YLF1114M470T
FL203 YLF1114M470T
IC212 TC7SH04FU
IC204 TC7SH04FU
IC205 TC7SHU04FU
IC208 TC7SH08FU
IC209 TC7SH08FU
IC202 MN5225 (SSG)
IC203 MN2038FAQ
X201 VSX0675 [32.1875MHz]
L214 ELJFC100JF
FL201 YLF1056
Q203 2SD2216
Q202 2SB1462
Q201 2SD2216
TO CCD/Page:3-24
PP201
(Z)
1 P1
2 Ø V1
3 Ø V2
4 Ø V3
5 Ø V4
6 PW
7 Ø R
8 Ø H2
9 Ø H1
10 SUB
11 15V
12 OUT
TO PROCESS/Page:3-35
CS ⑦
CBCLK ⑧
VCTRL ⑨
ADCLK ⑩
CBDATA ⑪
HCLR ⑫
FH2B ⑬
DCP ⑭
TO PROCESS/Page:3-35
HD ⑮
VD ⑯
FCKB ⑰
FCKA ⑱
TO PROCESS/Page: 3-35
CBLK ⑲
SYNC ⑳
SUB.CNT ㉑
SUB ㉒
VREFL1 ㉓
VREF3R3V ㉔
DR.CNT ㉕
APGAIN ㉖
AD.IN ㉗
AD.CNT ㉘
PEDE.CNT ㉙
ABC.OUT ㉚
ABC.CNT ㉛
CDS.OUT ㉜
KNEE.CNT ㉝
RBIAS ㉞
VREFH1 ㉟
VD (IC202-1) 3.4Vp-p
H1 (PP201-9) (CKZ9) 4.4Vp-p
H2 (PP201-8) (CKZ8) 4.4Vp-p
VD (IC202-1) 3.4Vp-p
V4 (PP201-5) 8Vp-p (CKZ5)
V3 (PP201-4) 24Vp-p (CKZ4)
V2 (PP201-3) 8Vp-p (CKZ3)
V1 (PP201-2) (CKZ2) 24Vp-p
DIS OFF (10msec./div.)
VD (IC202-1) 3.4Vp-p
SUB OUT (PP201-10) (CKZ10) 22Vp-p
SPORTS MODE (10msec./div)
HD (IC202-48) 3.2Vp-p
PP201-12 (CKZ12) 1.5Vp-p
SP1 (IC203-42) 3.2Vp-p
SP2 (IC203-41) 2.6Vp-p
STOP (20μsec./div.) GRAY SCALE
SC1
IC203-2 0.7Vp-p
SC2
IC203-37 0.5Vp-p
SC3
IC203-5 3.0Vp-p
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

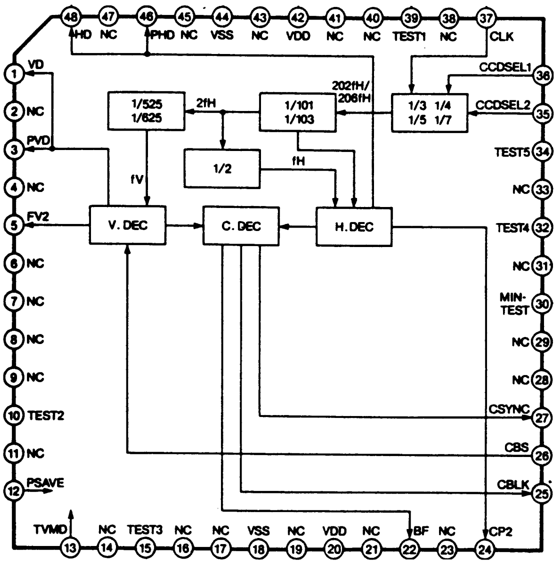
IC BLOCK

IC201 (VEFH42A)
(LOCATION: E-4)



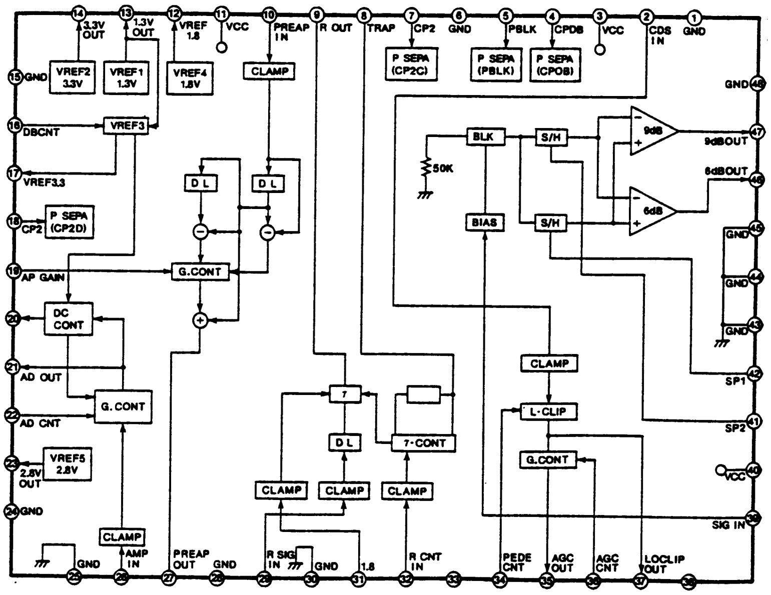
C1
RW0
RW1
ROUT
RCNT
H1
H2
VDD1
VDD
SUBCNT
VCTRL
VCC
C0
DS10
DS20
DCLK
CS
CSEL1
CSEL2
ADCLK
PNSW
DATA
DIS SW
2FCKIN
15V
18V
V1
V2
-8V
SUB (TOTP)
SUBOUT
V4
V3
GND
PBLK CNT
MLD SW
CLKO
PBLK
CPOB
A1
A0
HCLR
DCP1
DCP2
HD
VD
FH2B
CCD SW
AN1358S
2SD2216
TC6186-3-W
MB87882
4700
6800
0.1
39K
10K
8200
12K
75K
2.2
100K
AE CNT
R CNT
DS2
DS1
VSS
OSC SW
CPCT1
CSEL1
CSEL2
ADCLK
PNSW
YM01
YM02
YM03
ES CNT
CPCT2
CLK1
X1
X0
DIS SW
VCTRL
CLR
CLKO
TEST1
TEST2
TEST3
PBLKCNT
CH2
CH1
FV4
FV3
FV2
FV1
MLD SW
CCD SW
FH2
DSUB
VL
φV2
VH13
φV1
VH
VH24
φV4
φV3
NC (GND)
V1
V2
ISUB

IC202 (MN5225)
(LOCATION: B-5)



HD
NC
PHD
NC
VSS
NC
VDD
NC
NC
TEST1
NC
CLK
VD
NC
PVD
NC
FV2
NC
NC
NC
NC
TEST2
NC
PSAVE
CCDSEL1
CCDSEL2
TEST5
NC
TEST4
NC
MIN-TEST
NC
NC
CSYNC
CBS
CBLK
TVMD
NC
TEST3
NC
NC
VSS
NC
VDD
NC
BF
NC
CP2
1/525 1/625
2fH
1/101 1/103
202fH/ 206fH
1/3 1/4 1/5 1/7
1/2
fH
fV
V. DEC
C. DEC
H. DEC

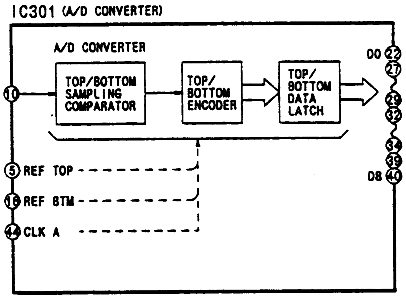
IC203 (MN2038FAQ)
(LOCATION: B-7)



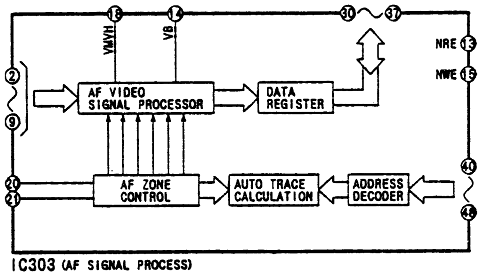
3.3V OUT
1.3V OUT
VREF 1.8
VCC
PREAP IN
R OUT
TRAP
CP2
GND
PBLK
CPOB
VCC
CDS IN
GND
VREF2 3.3V
VREF1 1.3V
VREF4 1.8V
CLAMP
P SEPA (CP2C)
P SEPA (PBLK)
P SEPA (CPOB)
GND
DBCNT
VREF3
VREF3.3
P SEPA (CP2D)
CP2
D L
D L
AP GAIN
G.CONT
DC CONT
AD OUT
G. CONT
AD CNT
VREF5 2.8V
2.8V OUT
GND
CLAMP
GND
AMP IN
PREAP OUT
GND
R SIG IN
GND
1.8
R CNT IN
PEDE CNT
AGC OUT
AGC CNT
LOCLIP OUT
γ
D L
γ-CONT
CLAMP
CLAMP
CLAMP
BLK
S/H
S/H
BIAS
50K
9dB
6dB
9dBOUT
6dBOUT
GND
GND
GND
GND
SP1
SP2
VCC
SIG IN
CLAMP
L-CLIP
G.CONT

IC BLOCK

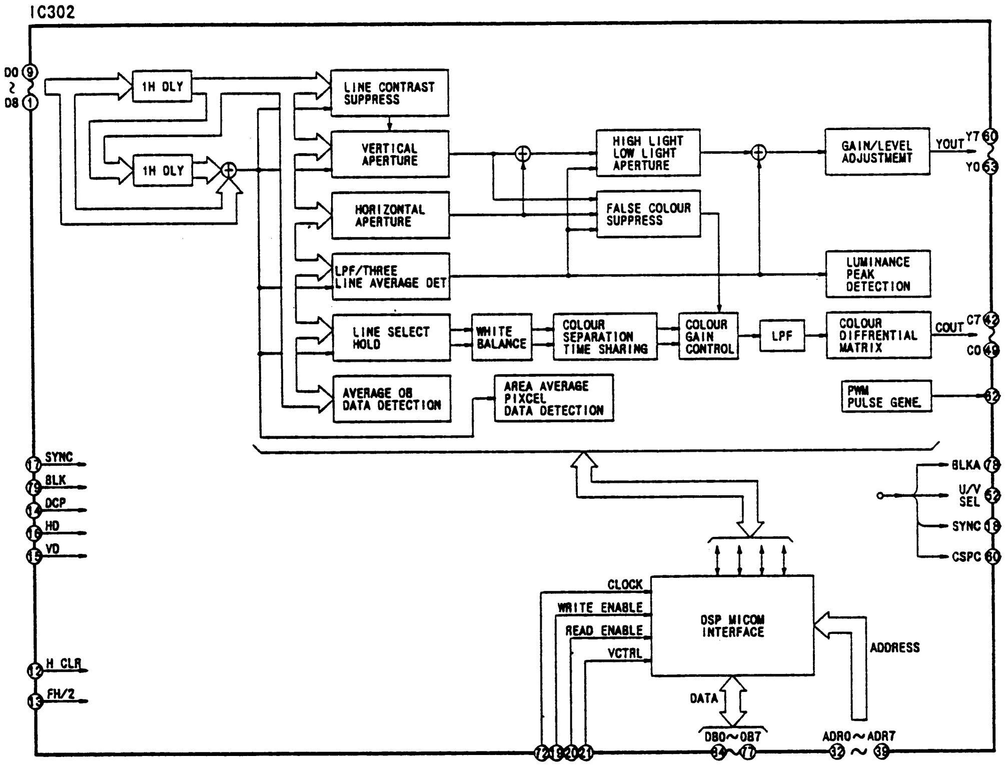
IC301 (MN65761T)
(LOCATION: F-4)


IC301 (A/D CONVERTER)
A/D CONVERTER
TOP/BOTTOM SAMPLING COMPARATOR
TOP/ BOTTOM ENCODER
TOP/ BOTTOM DATA LATCH
10
D0 22
27
29
32
34
39
D8 40
5 REF TOP
16 REF BTM
44 CLK A

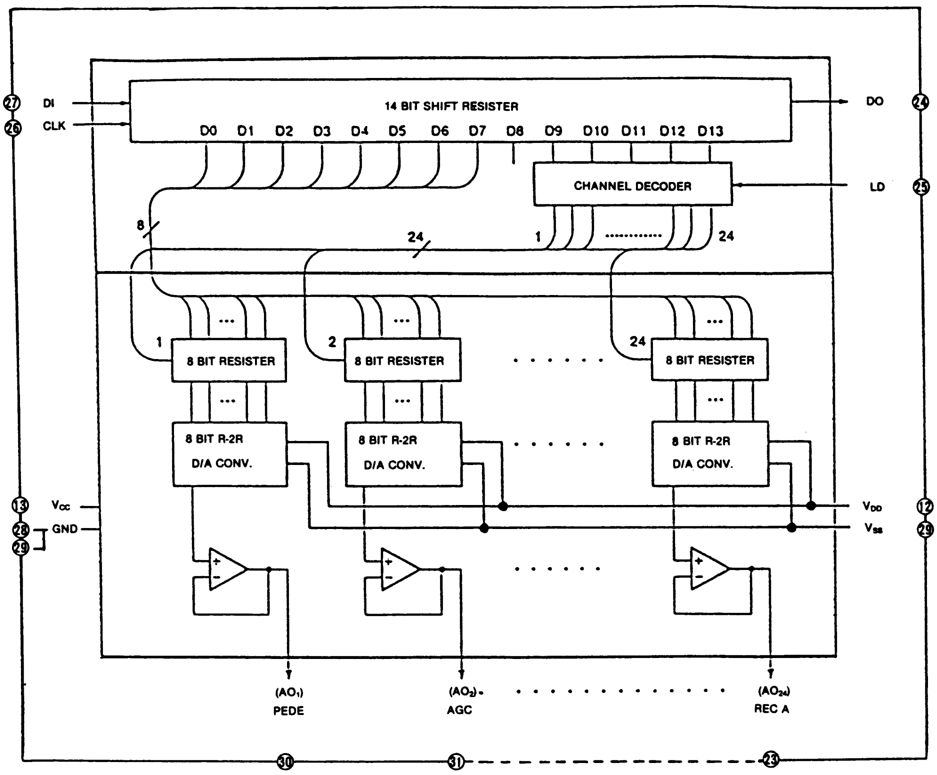
IC303 (TC9074F)
(LOCATION: C-7)


18
14
30 ~ 37
VMVH
VB
NRE 13
NWE 15
2
~
9
AF VIDEO SIGNAL PROCESSOR
DATA REGISTER
20
21
AF ZONE CONTROL
AUTO TRACE CALCULATION
ADDRESS DECODER
40
~
48
IC303 (AF SIGNAL PROCESS)

IC302 (MN67352)
(LOCATION: F-7)

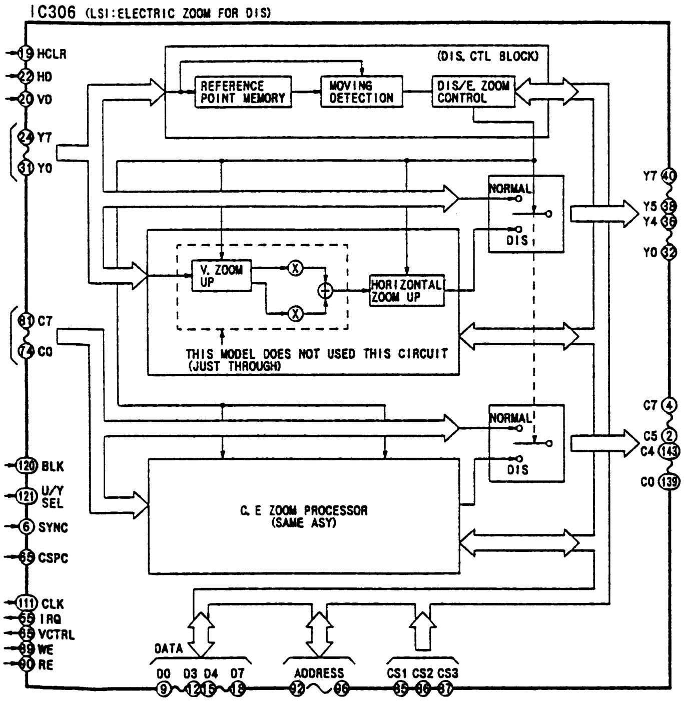

IC302
D0 9
~
D8 1
1H DLY
1H DLY
LINE CONTRAST SUPPRESS
VERTICAL APERTURE
HORIZONTAL APERTURE
LPF/THREE LINE AVERAGE DET
LINE SELECT HOLD
AVERAGE OB DATA DETECTION
HIGH LIGHT LOW LIGHT APERTURE
FALSE COLOUR SUPPRESS
WHITE BALANCE
COLOUR SEPARATION TIME SHARING
COLOUR GAIN CONTROL
LPF
AREA AVERAGE PIXCEL DATA DETECTION
GAIN/LEVEL ADJUSTMEMT
YOUT
Y7 60
Y0 63
LUMINANCE PEAK DETECTION
COLOUR DIFFRENTIAL MATRIX
COUT
C7 42
C0 49
PWM PULSE GENE.
62
BLKA 78
U/V SEL 52
SYNC 18
CSPC 80
17 SYNC
79 BLK
14 DCP
16 HD
15 VD
12 H CLR
13 FH/2
CLOCK
WRITE ENABLE
READ ENABLE
VCTRL
DSP MICOM INTERFACE
ADDRESS
DATA
DB0~DB7
ADR0~ADR7
72 19 20 21
64 ~ 77
32 ~ 39

IC304 (MB883451PFBND)
(LOCATION: B-5)



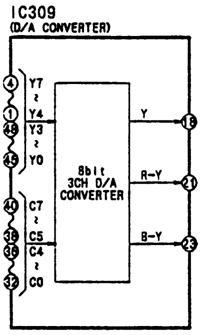
27 DI
26 CLK
14 BIT SHIFT RESISTER
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13
DO 24
CHANNEL DECODER
LD 25
8
24
1 24
1 8 BIT RESISTER
2 8 BIT RESISTER
24 8 BIT RESISTER
8 BIT R-2R D/A CONV.
13 Vcc
28 GND
29
VDD 12
Vss 29
(AO1) PEDE
(AO2) AGC
(AO24) REC A
30
31
23

IC306 (MN67334)
(LOCATION: F-11)



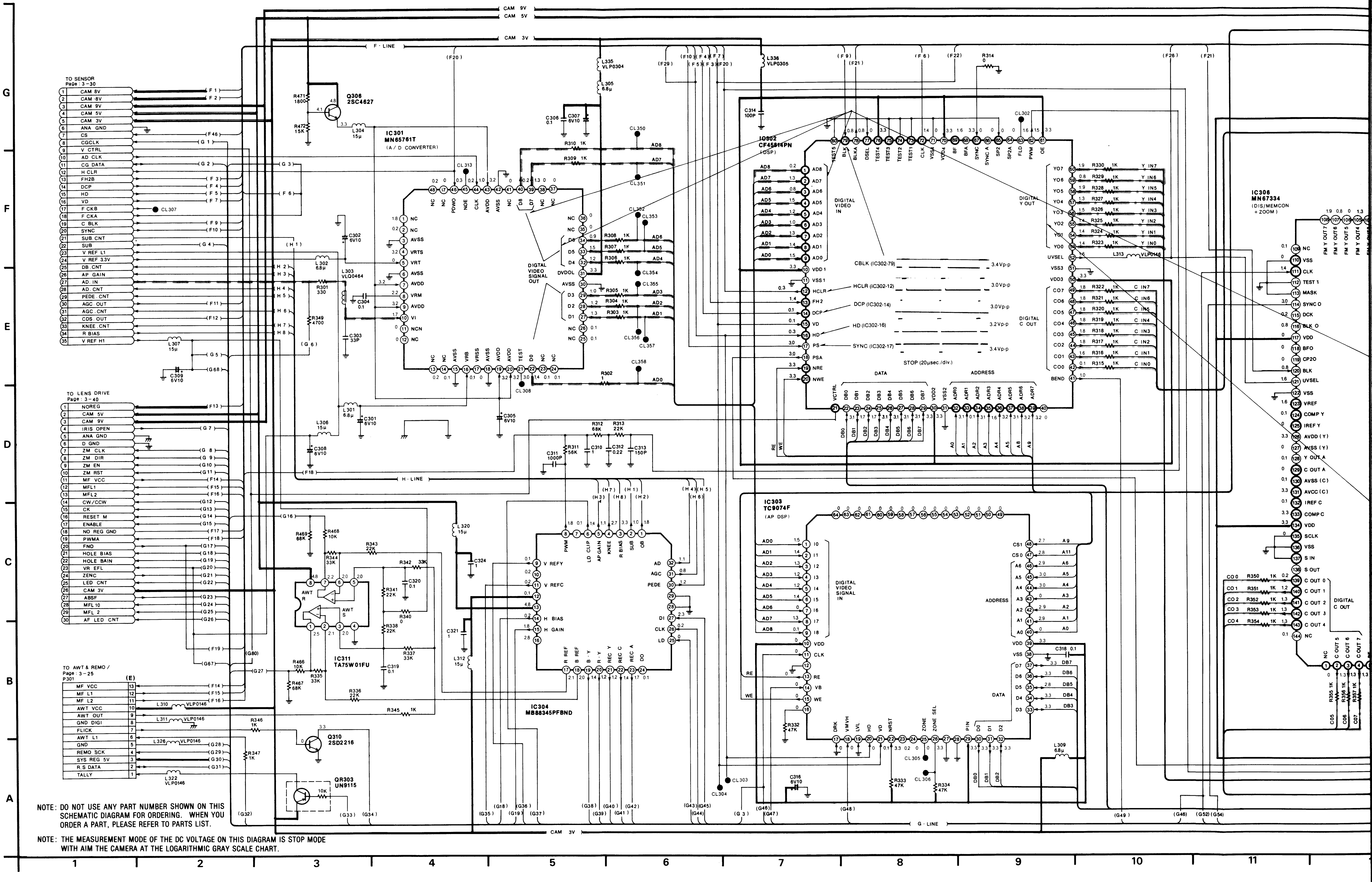
IC306 (LSI:ELECTRIC ZOOM FOR DIS)
19 HCLR
22 HD
20 VD
24 Y7
31 Y0
81 C7
74 C0
120 BLK
121 U/Y SEL
6 SYNC
65 CSPC
111 CLK
55 IRQ
85 VCTRL
89 WE
90 RE
(DIS. CTL BLOCK)
REFERENCE POINT MEMORY
MOVING DETECTION
DIS/E. ZOOM CONTROL
NORMAL
DIS
V. ZOOM UP
HORIZONTAL ZOOM UP
THIS MODEL DOES NOT USED THIS CIRCUIT (JUST THROUGH)
C. E ZOOM PROCESSOR (SAME ASY)
Y7 40
Y5 38
Y4 36
Y0 32
C7 4
C5 2
C4 143
C0 139
DATA
D0 D3 D4 D7
9 12 15 18
ADDRESS
92 96
CS1 CS2 CS3
85 86 87

IC309 (MN65703T)
(LOCATION: C-17)



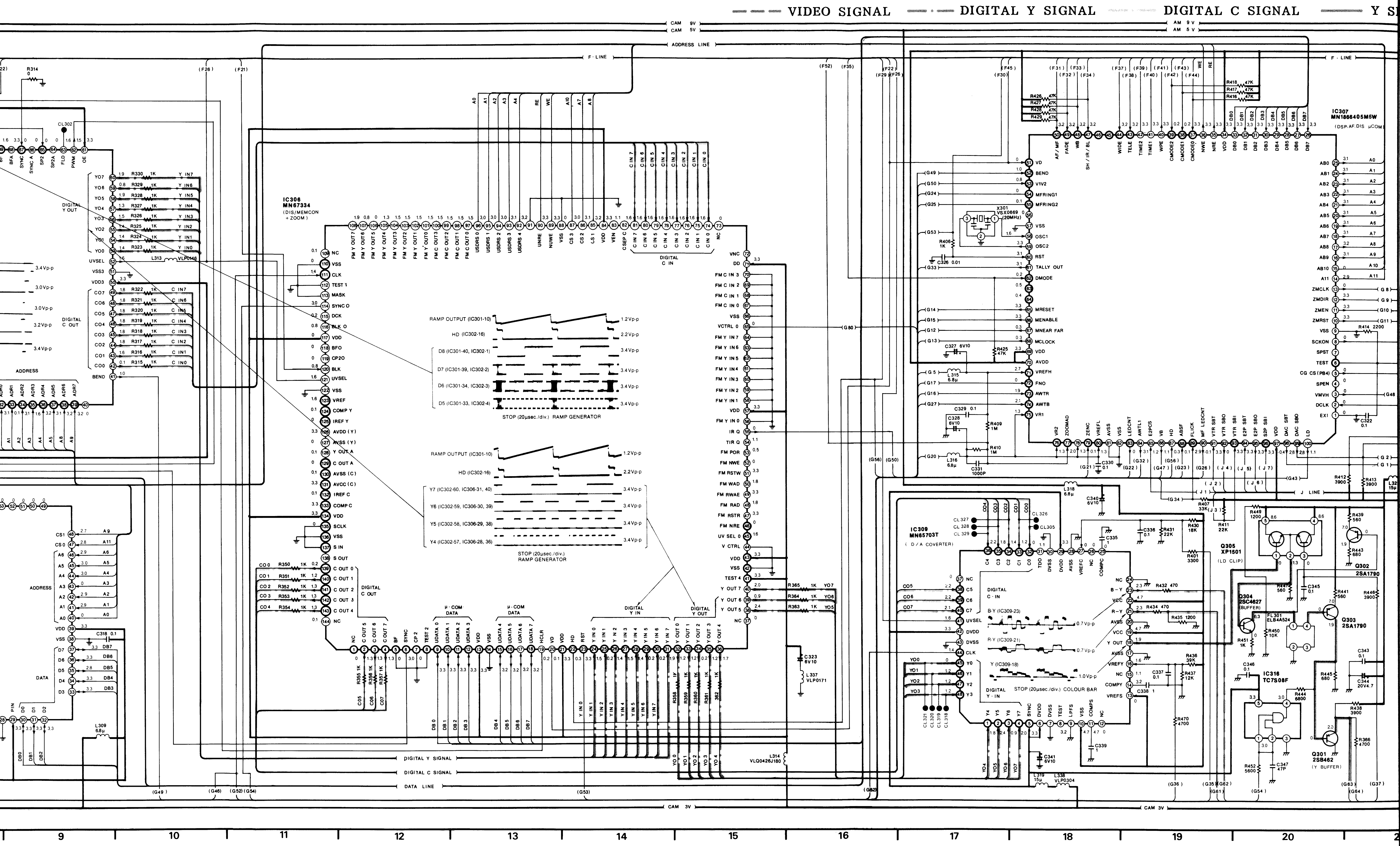
IC309
(D/A CONVERTER)
4 Y7
1 Y4
48 Y3
45 Y0
40 C7
38 C5
36 C4
32 C0
8bit 3CH D/A CONVERTER
Y 18
R-Y 21
B-Y 23

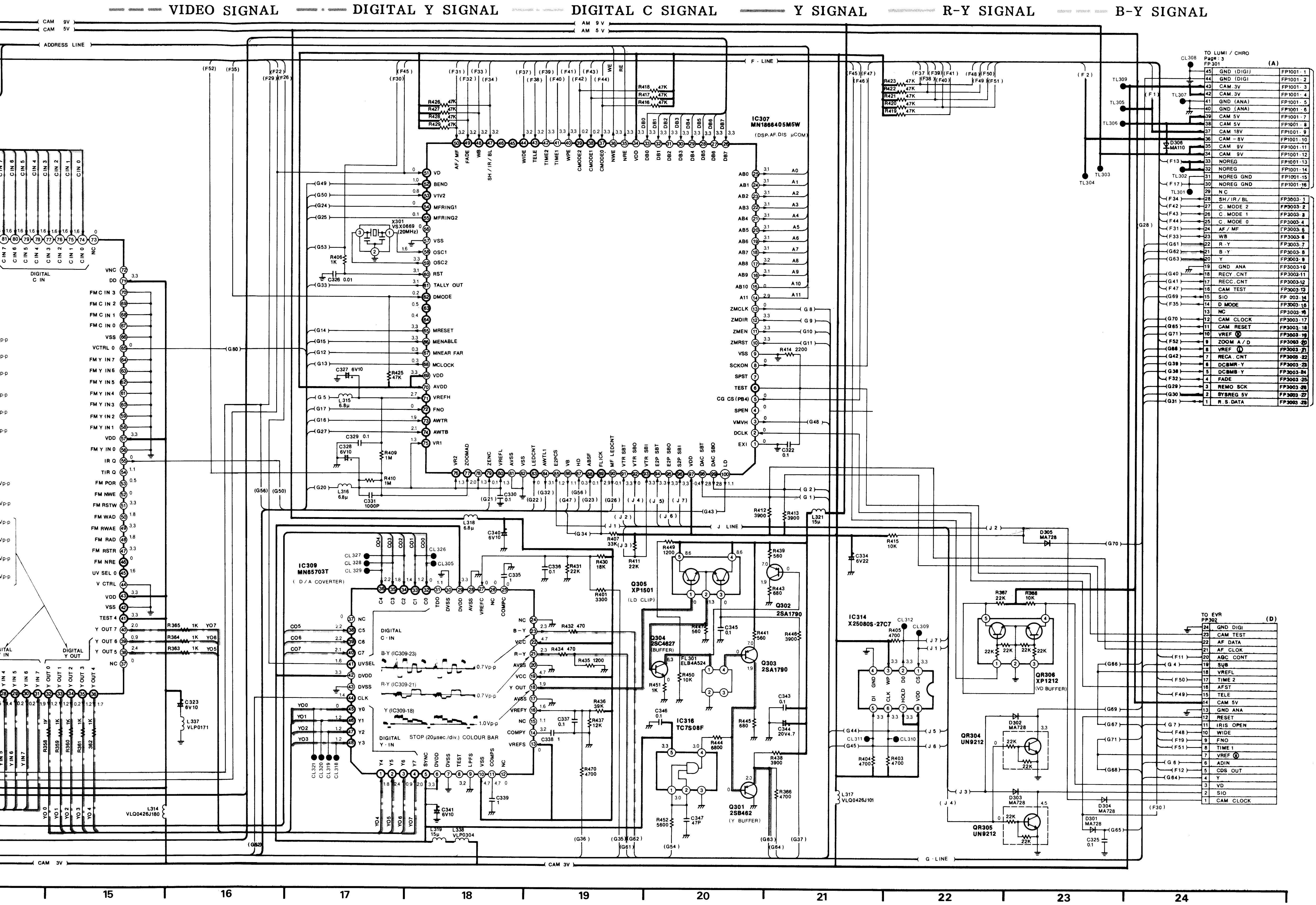
3-17. PROCESS SCHEMATIC DIAGRAM


CAM 9V
CAM 5V
CAM 3V
F · LINE
H · LINE
G · LINE
TO SENSOR
Page : 3 - 30
1 CAM 8V
2 CAM 8V
3 CAM 9V
4 CAM 5V
5 CAM 3V
6 ANA GND
7 CS
8 CGCLK
9 V CTRL
10 AD CLK
11 CG DATA
12 H CLR
13 FH2B
14 DCP
15 HD
16 VD
17 F CKB
18 F CKA
19 C BLK
20 SYNC
21 SUB CNT
22 SUB
23 V REF L1
24 V REF 3.3V
25 DB CNT
26 AP GAIN
27 AD IN
28 AD CNT
29 PEDE CNT
30 AGC OUT
31 AGC CNT
32 CDS OUT
33 KNEE CNT
34 R BIAS
35 V REF H1
TO LENS DRIVE
Page : 3 - 40
1 NOREG
2 CAM 5V
3 CAM 9V
4 IRIS OPEN
5 ANA GND
6 D GND
7 ZM CLK
8 ZM DIR
9 ZM EN
10 ZM RST
11 MF VCC
12 MFL1
13 MFL2
14 CW/CCW
15 CK
16 RESET M
17 ENABLE
18 NO REG GND
19 PWMA
20 FNO
21 HOLE BIAS
22 HOLE BAIN
23 VR EFL
24 ZENC
25 LED CNT
26 CAM 3V
27 ABSF
28 MFL 10
29 MFL 2
30 AF LED CNT
TO AWT & REMO /
Page : 3 - 25
P301
(E)
13 MF VCC
12 MF L1
11 MF L2
10 AWT VCC
9 AWT OUT
8 GND DIGI
7 FLICK
6 AWT L1
5 GND
4 REMO SCK
3 SYS REG 5V
2 R.S DATA
1 TALLY
Q306 2SC4627
IC301 MN65761T (A / D CONVERTER)
IC302 CF45514PN (DSP)
IC303 TC9074F (AP DSP)
IC304 MB88345PFBND
IC306 MN67334 (DIS/MEMCON + ZOOM)
IC311 TA75W01FU
Q310 2SD2216
QR303 UN9115
L335 VLP0304
L336 VLP0305
DIGITAL VIDEO SIGNAL OUT
DIGITAL VIDEO IN
DIGITAL Y OUT
DIGITAL C OUT
DIGITAL VIDEO SIGNAL IN
ADDRESS
DATA
CBLK (IC302-79) 3.4Vp-p
HCLR (IC302-12) 3.0Vp-p
DCP (IC302-14) 3.0Vp-p
HD (IC302-16) 3.2Vp-p
SYNC (IC302-17) 3.4Vp-p
STOP (20μsec./div.)
AWT R
AWT S
CL301
CL302
CL303
CL304
CL305
CL306
CL307
CL308
CL350
CL351
CL352
CL353
CL354
CL355
CL356
CL357
CL358
1
2
3
4
5
6
7
8
9
10
11
G
F
E
D
C
B
A

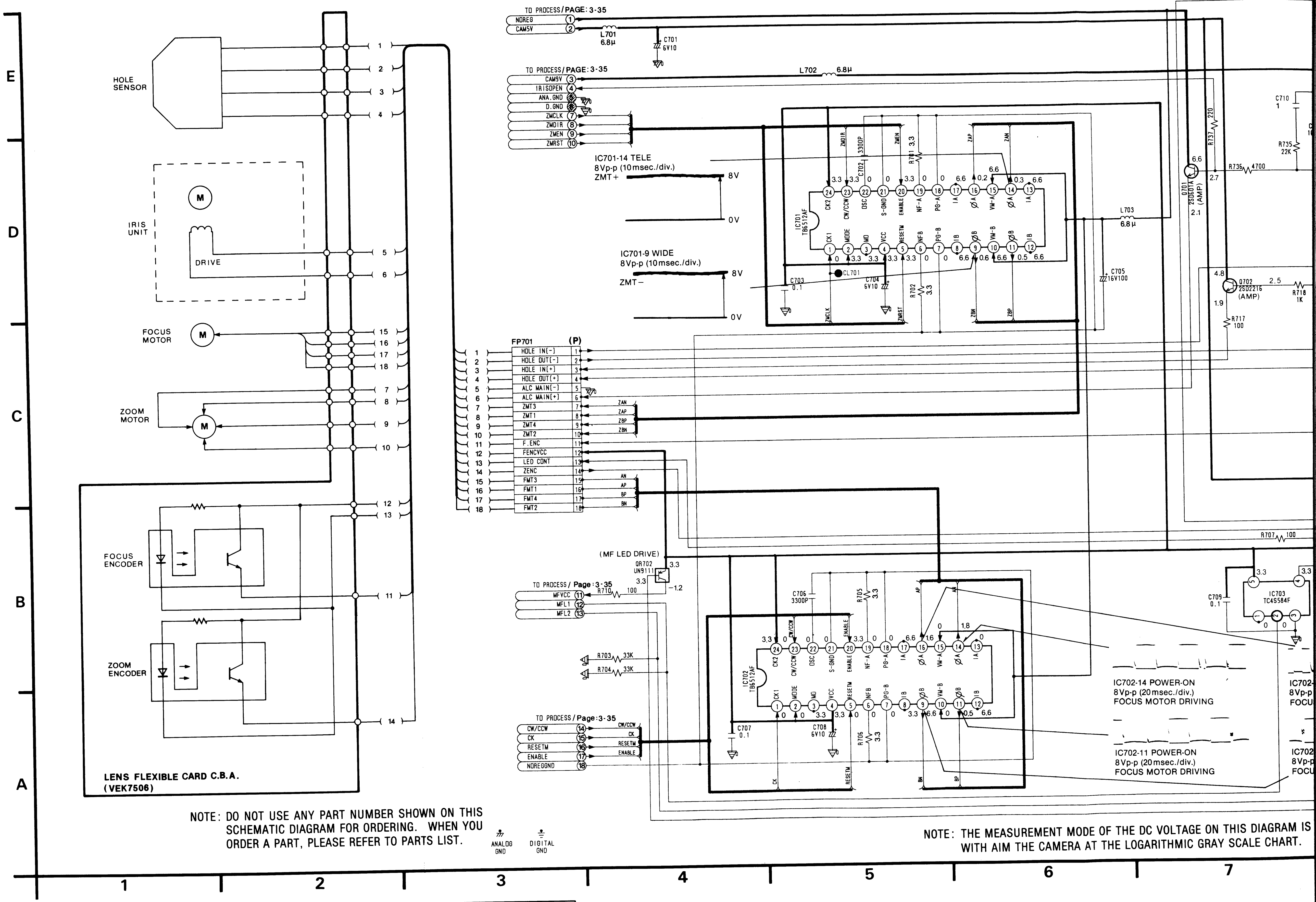
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.


VIDEO SIGNAL
DIGITAL Y SIGNAL
DIGITAL C SIGNAL
Y S
CAM 9V
CAM 5V
ADDRESS LINE
F · LINE
IC306
MN67334
(DIS/MEMCON + ZOOM)
IC307
MN1866405M5W
(DSP.AF.DIS μCOM)
IC309
MN65703T
(D/A COVERTER)
IC316
TC7S08F
Q305
XP1501
(LD CLIP)
Q304
2SC4627
(BUFFER)
Q303
2SA1790
Q302
2SA1790
Q301
2SB462
(Y BUFFER)
FL301
ELB4A524
X301
VSX0669
(20MHz)
L313 VLP0146
L314 VLQ0426J180
L337 VLP0171
L338 VLP0304
DIGITAL Y OUT
DIGITAL C OUT
DIGITAL C IN
DIGITAL Y IN
DIGITAL C · IN
DIGITAL Y · IN
μ · COM DATA
ADDRESS
DATA
RAMP OUTPUT (IC301-10)
HD (IC302-16)
D8 (IC301-40, IC302-1)
D7 (IC301-39, IC302-2)
D6 (IC301-34, IC302-3)
D5 (IC301-33, IC302-4)
STOP (20μsec./div.) RAMP GENERATOR
Y7 (IC302-60, IC306-31, 40)
Y6 (IC302-59, IC306-30, 39)
Y5 (IC302-58, IC306-29, 38)
Y4 (IC302-57, IC306-28, 36)
STOP (20μsec./div.) RAMP GENERATOR
1.2Vp-p
2.2Vp-p
3.4Vp-p
B-Y (IC309-23)
R-Y (IC309-21)
Y (IC309-18)
0.7Vp-p
1.0Vp-p
STOP (20μsec./div.) COLOUR BAR
DIGITAL Y SIGNAL
DIGITAL C SIGNAL
DATA LINE
CAM 3V
J LINE
9
10
11
12
13
14
15
16
17
18
19
20


VIDEO SIGNAL
DIGITAL Y SIGNAL
DIGITAL C SIGNAL
Y SIGNAL
R-Y SIGNAL
B-Y SIGNAL
CAM 9V
CAM 5V
ADDRESS LINE
AM 9 V
AM 5 V
F - LINE
J LINE
G - LINE
CAM 3V
IC307
MN1866405M5W
(DSP.AF.DIS μCOM)
X301
VSX0669
(20MHz)
IC309
MN65703T
(D/A COVERTER)
DIGITAL C - IN
DIGITAL Y - IN
B-Y (IC309-23)
R-Y (IC309-21)
Y (IC309-18)
0.7 Vp-p
1.0 Vp-p
STOP (20μsec./div.) COLOUR BAR
Q305
XP1501
(LD CLIP)
Q302
2SA1790
Q304
2SC4627
(BUFFER)
FL301
ELB4A524
Q303
2SA1790
IC316
TC7S08F
Q301
2SB462
(Y BUFFER)
IC314
X25080S-27C7
QR306
XP1212
(VD BUFFER)
QR304
UN9212
QR305
UN9212
D302
MA728
D303
MA728
D304
MA728
D301
MA728
D305
MA728
D306
MA110
L314
VLQ0426J180
L317
VLQ0426J101
L337
VLP0171
L338
VLP0304
DIGITAL C IN
DIGITAL Y OUT
TO LUMI / CHRO
Page 3
FP301
(A)
TO POWER
Page 3-49
(C-13)
TO
LUMI/CHRO
Page 3-66
(F-1)
TO EVR
PP302
(D)
15
16
17
18
19
20
21
22
23
24

3-18. LENS DRIVE SCHEMATIC DIAGRAM

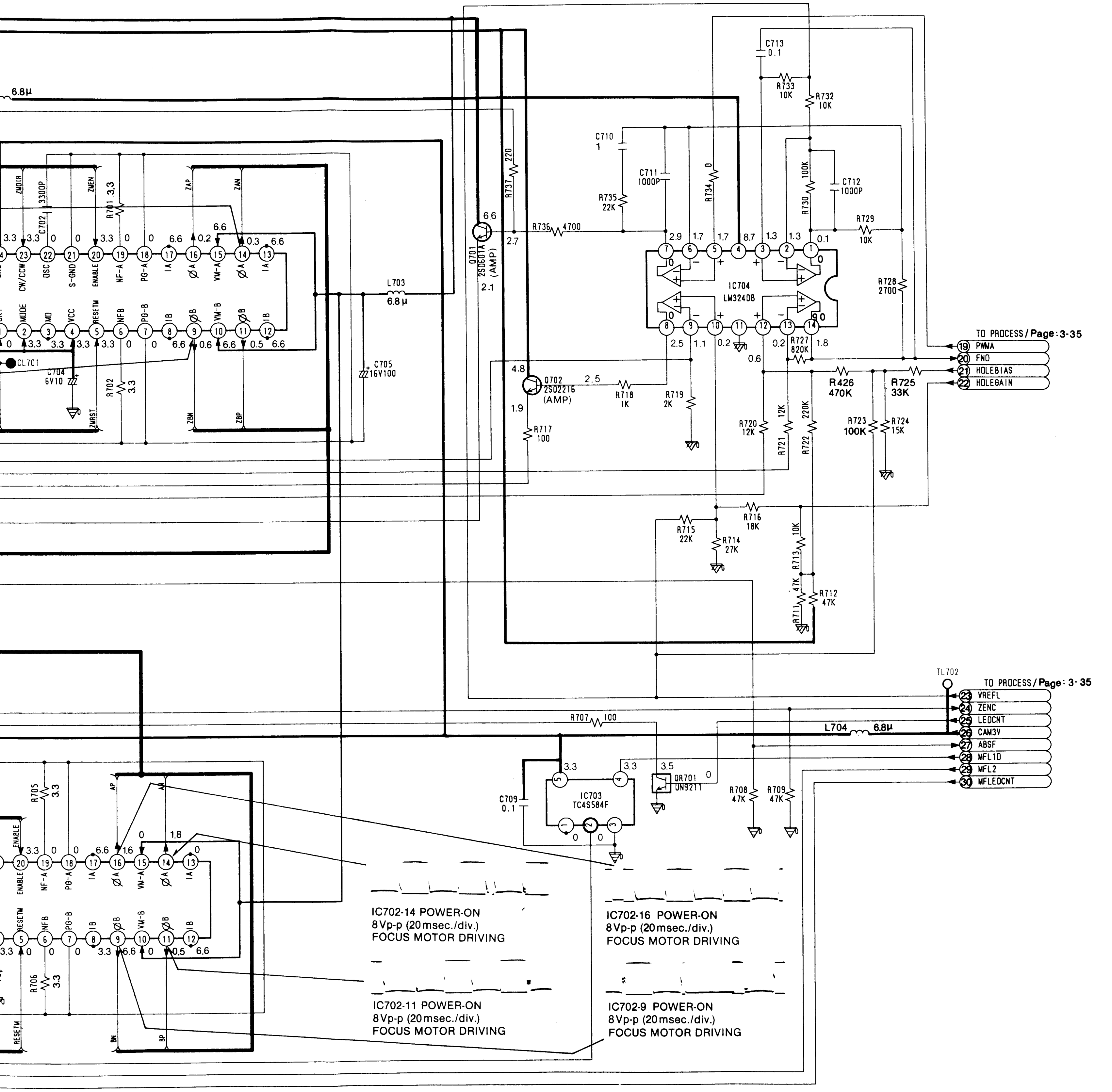

E
D
C
B
A
1
2
3
4
5
6
7
HOLE SENSOR
IRIS UNIT
DRIVE
FOCUS MOTOR
ZOOM MOTOR
FOCUS ENCODER
ZOOM ENCODER
LENS FLEXIBLE CARD C.B.A. (VEK7506)
TO PROCESS/PAGE: 3-35
NOREG
CAM5V
L701 6.8µ
C701 6V10
CAM5V
IRISOPEN
ANA.GND
D.GND
ZMCLK
ZMDIR
ZMEN
ZMRST
L702 6.8µ
IC701-14 TELE
8Vp-p (10msec./div.)
ZMT+
8V
0V
IC701-9 WIDE
8Vp-p (10msec./div.)
ZMT−
IC701 TB6512AF
CK2
CW/CCW
OSC
S-GND
ENABLE
NF-A
PG-A
IA
ØA
VM-A
ØA
IA
CK1
MODE
MO
VCC
RESETM
NFB
PG-B
IB
ØB
VM-B
ØB
IB
C702 3300P
R701 3.3
R702 3.3
C703 0.1
C704 6V10
CL701
L703 6.8µ
C705 16V100
C710 1
R737 220
R735 22K
R736 4700
Q701 2SD601A (AMP)
Q702 2SD2216 (AMP)
R718 1K
R717 100
R707 100
FP701
(P)
HOLE IN(−)
HOLE OUT(−)
HOLE IN(+)
HOLE OUT(+)
ALC MAIN(−)
ALC MAIN(+)
ZMT3
ZMT1
ZMT4
ZMT2
F.ENC
FENCVCC
LED CONT
ZENC
FMT3
FMT1
FMT4
FMT2
ZAN
ZAP
ZBP
ZBN
AN
AP
BP
BN
(MF LED DRIVE)
QR702 UN9111
TO PROCESS/ Page: 3-35
MFVCC
MFL1
MFL2
R710 100
R703 33K
R704 33K
TO PROCESS/ Page: 3-35
CW/CCW
CK
RESETM
ENABLE
NOREGGND
C706 3300P
R705 3.3
R706 3.3
IC702 TB6512AF
C707 0.1
C708 6V10
C709 0.1
IC703 TC4S584F
IC702-14 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC702-11 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
ANALOG GND
DIGITAL GND

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

Back Page:
PROCESS Section

LENS DRIVE Section


6.8µ
Q701 2SD601A (AMP)
Q702 2SD2216 (AMP)
IC704 LM324DB
IC703 TC4S584F
QR701 UN9211
C702 3300P
C704 6V10
C705 16V100
C709 0.1
C710 1
C711 1000P
C712 1000P
C713 0.1
L703 6.8µ
L704 6.8µ
R701 3.3
R702 3.3
R705 3.3
R706 3.3
R707 100
R708 47K
R709 47K
R711 47K
R712 47K
R713 10K
R714 27K
R715 22K
R716 18K
R717 100
R718 1K
R719 2K
R720 12K
R721 12K
R722 220K
R723 100K
R724 15K
R725 33K
R426 470K
R727 820K
R728 2700
R729 10K
R730 100K
R732 10K
R733 10K
R734 0
R735 22K
R736 4700
R737 220
CL701
TL702
ZMDIR
ZMEN
ZAP
ZAN
ZBN
ZBP
ZMRST
CW/CCW
OSC
S-GND
ENABLE
NF-A
PG-A
IA
ØA
VM-A
MODE
RESETM
NFB
PG-B
IB
ØB
VM-B
AP
AN
BN
BP
TO PROCESS/Page:3-35
⑲ PWMA
⑳ FND
㉑ HOLEBIAS
㉒ HOLEGAIN
TO PROCESS/Page:3-35
㉓ VREFL
㉔ ZENC
㉕ LEDCNT
㉖ CAM3V
㉗ ABSF
㉘ MFL1O
㉙ MFL2
㉚ MFLEDCNT
IC702-14 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC702-16 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC702-11 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC702-9 POWER-ON
8Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
5
6
7
8
9

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

Integrated Circuit	
IC201	D-5
IC202	D-9
IC203	C-12
IC204	D-10
IC205	E-10
IC206	D-10
IC207	D-8
IC208	D-6
IC209	D-6
IC210	D-6
IC212	D-10
IC301	C-5
IC302	B-5
IC303	B-11
IC304	B-3
IC306	B-6
IC307	B-12
IC309	C-9
IC311	B-13
IC314	C-13
IC316	D-9
IC701	B-14
IC702	A-14
IC703	A-1
IC704	C-2

Transistor	
Q201	D-12
Q202	C-3
Q203	C-3
Q205	D-11
Q206	D-11
Q207	D-11
Q301	D-9
Q302	D-9
Q303	D-9
Q304	D-9
Q305	D-8
Q306	B-11
Q310	A-1
Q701	C-13
Q702	C-14

Transistor & Resistor	
QR303	B-13
QR304	B-12
QR305	B-3
QR306	C-3
QR701	A-2
QR702	A-1

Diode	
D202	D-11
D203	D-11
D205	D-10
D206	D-11
D207	D-10
D208	D-11
D209	D-10
D210	D-11
D212	D-10
D301	A-13
D302	B-3
D303	B-3
D304	B-3
D305	B-8
D306	D-9

Test Point	
CL201	D-7
CL202	C-3
CL203	C-4
CL204	C-4
CL205	C-4
CL206	B-4
CL207	D-6
CL208	E-7
CL209	D-6
CL210	E-6
CL302	A-5
CL303	B-3
CL304	B-5
CL305	A-5
CL306	A-5
CL307	C-6
CL308	B-5
CL309	C-3
CL310	C-3
CL311	C-3
CL312	C-3
CL313	C-4
CL314	C-6
CL315	C-6
CL316	C-6
CL317	C-6
CL318	C-6
CL319	C-6
CL320	C-6
CL321	C-6
CL322	C-6
CL323	C-6
CL324	C-6
CL325	C-7
CL326	C-7
CL327	C-6
CL328	C-7
CL329	C-6
CL350	C-5
CL351	C-5
CL352	C-5
CL353	C-5
CL354	C-5
CL355	B-5
CL356	B-5
CL357	B-4
CL358	B-5
CL701	C-1
TL301	D-7
TL302	D-7
TL303	D-7
TL304	D-7
TL305	D-7
TL306	D-7
TL307	D-7
TL308	D-7
TL309	D-7
TL702	A-2

Connector	
FP301	D-7
FP701	C-13
P301	B-1
PP201	D-4
PP302	C-3

Crystal	
X201	E-6
X301	A-13

Filter	
FL201	C-3
FL202	C-10
FL203	D-10
FL301	C-7

Coil	
L201	D-4
L202	D-12
L203	C-4
L204	D-11
L205	C-4
L206	C-4
L207	E-11
L208	E-10
L209	D-11
L210	E-11
L211	D-4
L212	D-4
L213	C-11
L214	E-9
L215	D-10
L216	E-10
L217	
L218	
L219	
L223	
L301	
L302	
L303	
L304	
L305	
L306	
L307	
L309	
L310	
L311	
L312	
L313	
L314	
L315	
L316	
L317	
L318	
L319	
L320	
L321	
L322	
L326	
L335	
L336	
L338	
L339	
L701	
L702	
L703	
L704	

Capacitor	
C201	
C202	
C203	
C204	
C205	
C206	
C207	
C208	
C209	
C210	
C211	
C213	
C214	
C215	
C216	
C217	
C218	
C219	
C220	
C221	
C222	
C223	
C224	
C225	
C226	
C227	
C228	
C229	
C230	
C231	
C232	
C234	
C236	
C237	
C239	
C241	
C242	
C243	
C244	
C245	
C247	
C248	
C253	
C254	
C256	
C258	

ADDRESS INFORMATION

/Page: 3-35

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CAMERA MAIN C.B.A.

Integrated Circuit	
IC201	D-5
IC202	D-9
IC203	C-12
IC204	D-10
IC205	E-10
IC206	D-10
IC207	D-8
IC208	D-6
IC209	D-6
IC210	D-6
IC212	D-10
IC301	C-5
IC302	B-5
IC303	B-11
IC304	B-3
IC306	B-6
IC307	B-12
IC309	C-9
IC311	B-13
IC314	C-13
IC316	D-9
IC701	B-14
IC702	A-14
IC703	A-1
IC704	C-2

Transistor	
Q201	D-12
Q202	C-3
Q203	C-3
Q205	D-11
Q206	D-11
Q207	D-11
Q301	D-9
Q302	D-9
Q303	D-9
Q304	D-9
Q305	D-8
Q306	B-11
Q310	A-1
Q701	C-13
Q702	C-14

Transistor & Resistor	
QR303	B-13
QR304	B-12
QR305	B-3
QR306	C-3
QR701	A-2
QR702	A-1

Diode	
D202	D-11
D203	D-11
D205	D-10
D206	D-11
D207	D-10
D208	D-11
D209	D-10
D210	D-11
D212	D-10
D301	A-13
D302	B-3
D303	B-3
D304	B-3
D305	B-8
D306	D-9

Test Point	
CL201	D-7
CL202	C-3
CL203	C-4
CL204	C-4
CL205	C-4
CL206	B-4
CL207	D-6
CL208	E-7
CL209	D-6
CL210	E-6
CL302	A-5
CL303	B-3
CL304	B-5
CL305	A-5
CL306	A-5
CL307	C-6
CL308	B-5
CL309	C-3
CL310	C-3
CL311	C-3
CL312	C-3
CL313	C-4
CL314	C-6
CL315	C-6
CL316	C-6
CL317	C-6
CL318	C-6
CL319	C-6
CL320	C-6
CL321	C-6
CL322	C-6
CL323	C-6
CL324	C-6
CL325	C-7
CL326	C-7
CL327	C-6
CL328	C-7
CL329	C-6
CL350	C-5
CL351	C-5
CL352	C-5
CL353	C-5
CL354	C-5
CL355	B-5
CL356	B-5
CL357	B-4
CL358	B-5
CL701	C-1
TL301	D-7
TL302	D-7
TL303	D-7
TL304	D-7
TL305	D-7
TL306	D-7
TL307	D-7
TL308	D-7
TL309	D-7
TL702	A-2

Connector	
FP301	D-7
FP701	C-13
P301	B-1
PP201	D-4
PP302	C-3

Crystal	
X201	E-6
X301	A-13

Filter	
FL201	C-3
FL202	C-10
FL203	D-10
FL301	C-7

Coil	
L201	D-4
L202	D-12
L203	C-4
L204	D-11
L205	C-4
L206	C-4
L207	E-11
L208	E-10
L209	D-11
L210	E-11
L211	D-4
L212	D-4
L213	C-11
L214	E-9
L215	D-10
L216	E-10
L217	D-7
L218	E-9
L219	C-4
L223	D-4
L301	C-4
L302	C-4
L303	C-4
L304	B-11
L305	C-5
L306	B-11
L307	B-12
L309	B-10
L310	B-1
L311	B-1
L312	B-2
L313	B-11
L314	B-7
L315	B-3
L316	B-3
L317	B-11
L318	C-9
L319	C-6
L320	B-2
L321	D-7
L322	A-1
L326	B-1
L335	C-5
L336	B-3
L338	C-6
L339	A-7
L701	A-14
L702	B-14
L703	A-14
L704	A-2

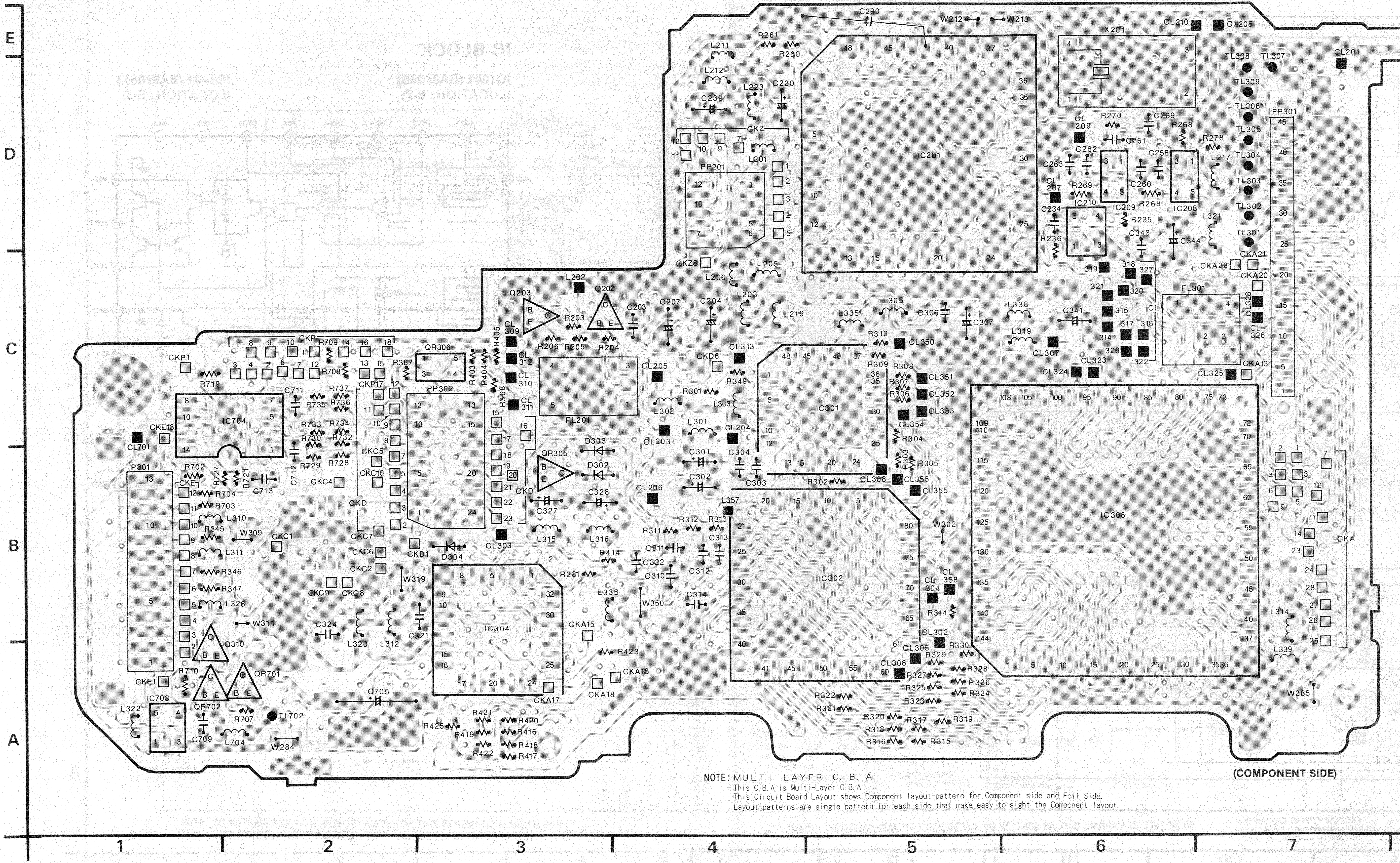
Capacitor	
C201	D-12
C202	C-12
C203	C-4
C204	C-4
C205	C-11
C206	C-11
C207	C-4
C208	C-11
C209	C-11
C210	B-11
C211	B-11
C213	C-12
C214	C-12
C215	C-12
C216	C-12
C217	C-12
C218	D-12
C219	D-11
C220	D-4
C221	D-12
C222	E-11
C223	D-11
C224	D-10
C225	D-11
C226	D-11
C227	D-11
C228	D-10
C229	D-11
C230	D-10
C231	D-11
C232	D-10
C234	D-6
C236	E-10
C237	E-11
C239	D-4
C241	D-9
C242	E-10
C243	D-10
C244	D-10
C245	D-10
C247	C-10
C248	D-10
C253	E-10
C254	D-9
C256	E-9
C258	D-6
C259	D-8
C260	D-6
C261	D-6
C262	D-6
C263	D-6
C264	E-9
C265	D-9
C266	D-8
C267	D-8
C268	D-8
C269	D-6
C271	D-11
C290	E-5
C301	B-4
C302	B-4
C303	B-4
C304	B-4
C305	B-11
C306	C-5
C307	C-5
C308	B-11
C309	B-12
C310	B-4
C311	B-4
C312	B-4
C313	B-4
C314	B-4
C316	A-11
C318	A-11
C319	B-13
C320	B-14
C321	B-2
C322	B-4
C323	B-7
C324	B-2
C325	A-13
C326	B-13
C327	B-3
C328	B-3
C329	B-12
C330	C-13
C331	C-13
C334	B-12
C335	C-9
C336	C-8
C337	C-8
C338	C-9
C339	C-9
C340	C-9
C341	C-6
C343	D-6
C344	D-6
C345	C-8
C346	D-9
C347	C-9
C701	B-14
C702	B-14
C703	C-14
C704	C-14
C705	A-2
C706	A-14
C707	B-14
C708	B-14
C709	A-1
C710	B-13
C711	C-2
C712	B-2
C713	B-2

Resistor	
R201	D-12
R202	C-11
R203	C-3
R204	C-3
R205	C-3
R206	C-3
R207	C-12
R210	C-11
R211	C-11
R212	C-12
R213	C-11
R214	C-12
R215	C-13
R216	C-12
R217	C-13
R218	C-12
R219	C-12
R221	D-11
R222	D-11
R223	D-11
R224	D-11
R225	D-11
R226	D-11
R227	D-11
R228	D-11
R229	D-11
R230	D-11
R231	D-11
R232	D-11
R233	E-11
R234	E-11
R235	D-6
R236	D-6
R238	D-11
R239	D-11
R240	C-11
R241	C-10
R242	D-11
R243	C-11
R244	D-10
R245	D-10
R246	E-10
R247	D-10
R248	D-10
R249	D-10
R250	D-9
R251	D-10
R252	D-10
R253	D-10
R255	C-11
R256	D-10
R257	D-10
R258	D-9
R259	D-10
R260	E-4
R261	E-4
R262	D-10
R263	D-10
R264	C-10
R266	D-6
R267	D-9
R268	D-6
R269	D-6
R270	D-6
R271	D-9
R272	D-9
R273	D-9
R274	D-8
R275	D-8
R276	D-8
R277	D-10
R278	D-7
R279	C-11
R280	C-11
R281	B-3
R282	D-11
R301	C-4
R302	B-5
R303	B-5
R304	C-5
R305	B-5
R306	C-5
R307	C-5
R308	C-5
R309	C-5
R310	C-5
R311	B-4
R312	B-4
R313	B-4
R314	B-5
R315	A-5
R316	A-5
R317	A-5
R318	A-5
R319	A-5
R320	A-5
R321	A-5
R322	A-5
R323	A-5
R324	A-5
R325	A-5
R326	A-5
R327	A-5
R328	A-5
R329	A-5
R330	A-5
R332	A-10
R333	A-10
R334	A-11
R335	B-13
R336	B-13
R337	B-13
R338	B-13
R340	B-14
R341	B-14
R342	B-13
R343	B-14
R344	B-14
R345	B-1
R346	B-1
R347	B-1
R349	C-4
R350	B-10
R351	B-10
R352	B-10
R353	B-10
R354	B-10
R355	B-10
R356	B-10
R357	B-10
R358	B-9
R359	B-9
R360	B-9
R361	B-9
R362	B-9
R363	B-9
R364	B-9
R365	B-9
R366	C-9
R367	C-2
R368	C-3
R401	B-9
R403	C-3
R404	C-3
R405	C-3
R406	B-13
R407	B-12
R409	B-13
R410	B-13
R411	B-12
R412	B-12
R413	B-12
R414	B-3
R415	B-12
R416	A-3
R417	A-3
R418	A-3
R419	A-3
R420	A-3
R421	A-3
R422	A-3
R423	A-3
R425	A-3
R426	A-13
R427	A-13
R428	A-13
R429	A-13
R430	C-9
R431	C-8
R432	C-9
R434	C-9
R435	C-8
R436	C-9
R437	C-8
R438	D-9
R439	D-9
R441	D-9
R443	C-9
R444	D-9
R445	C-9
R446	C-8
R447	C-8
R449	D-8
R450	C-9
R451	C-9
R452	C-9
R466	B-13
R467	B-13
R468	B-14
R469	B-14
R470	C-8
R471	B-11
R472	B-11
R701	B-14
R702	B-1
R703	B-1
R704	B-1
R705	A-14
R706	B-14
R707	A-2
R708	C-2
R709	C-2
R710	A-1
R711	C-14
R712	C-14
R713	C-14
R714	C-14
R715	C-14
R716	C-14
R717	C-14
R718	C-14
R719	C-1
R720	B-14
R721	B-2
R722	C-14
R723	C-14
R724	C-14
R725	C-14
R726	C-14
R727	B-1
R728	B-2
R729	B-2
R730	C-2
R732	C-2
R733	C-2
R734	C-2
R735	C-2
R736	C-2
R737	C-2

Wire	
W201	D-12
W203	D-8
W204	D-11
W206	C-10
W207	C-10
W211	D-10
W212	E-5
W213	E-6
W215	C-10
W216	D-8
W219	C-11
W284	A-2
W285	A-5
W286	D-12
W302	B-5
W304	A-10
W305	A-10
W307	A-11
W309	B-2
W311	B-2
W312	C-11
W317	B-11
W318	B-10
W319	B-2
W350	B-4
W351	B-12

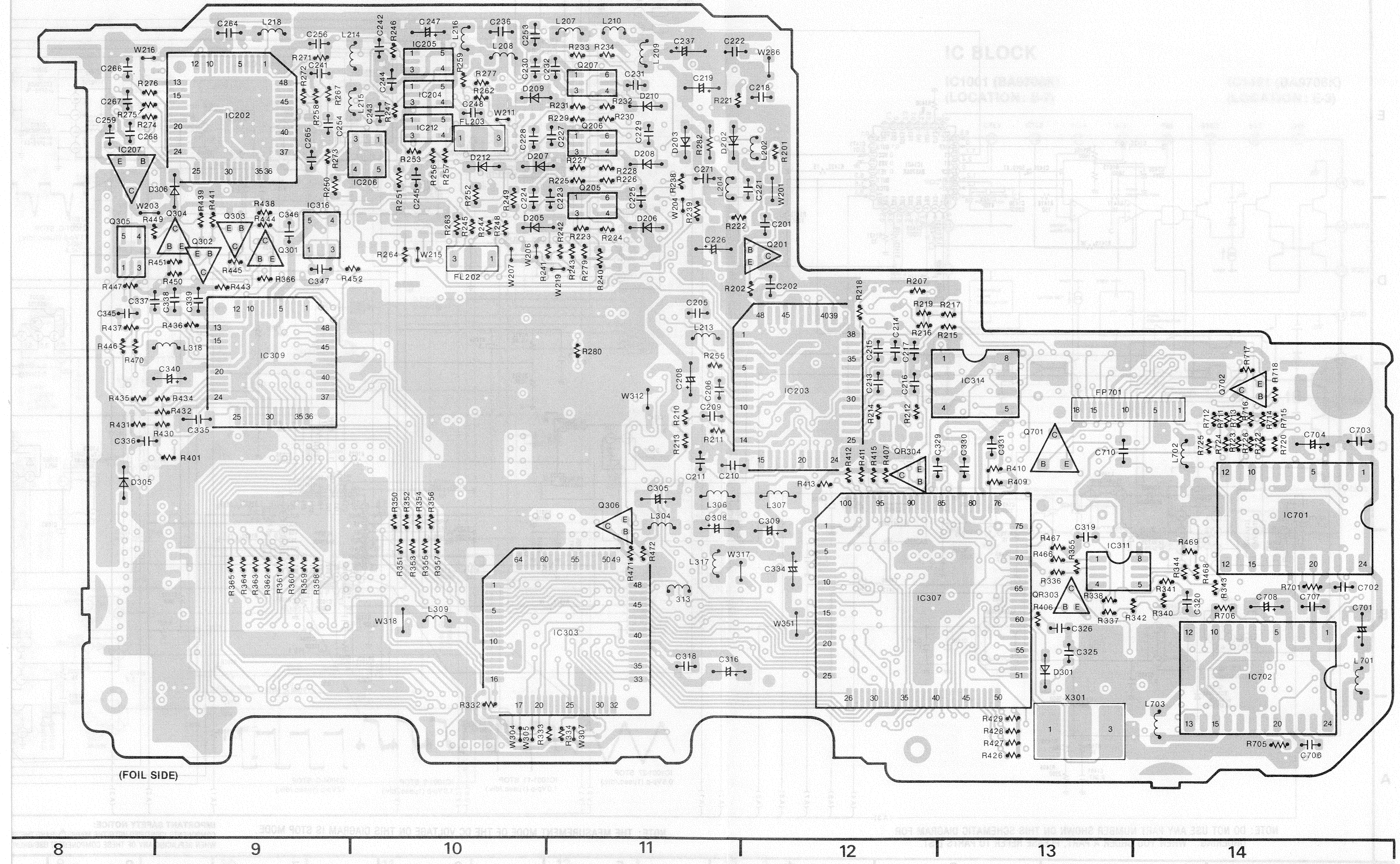
ADDRESS INFORMATION

3-19. CAMERA MAIN [SENSOR, PROCESS, LENS DRIVE Section] C.B.A. (VEP23270A)

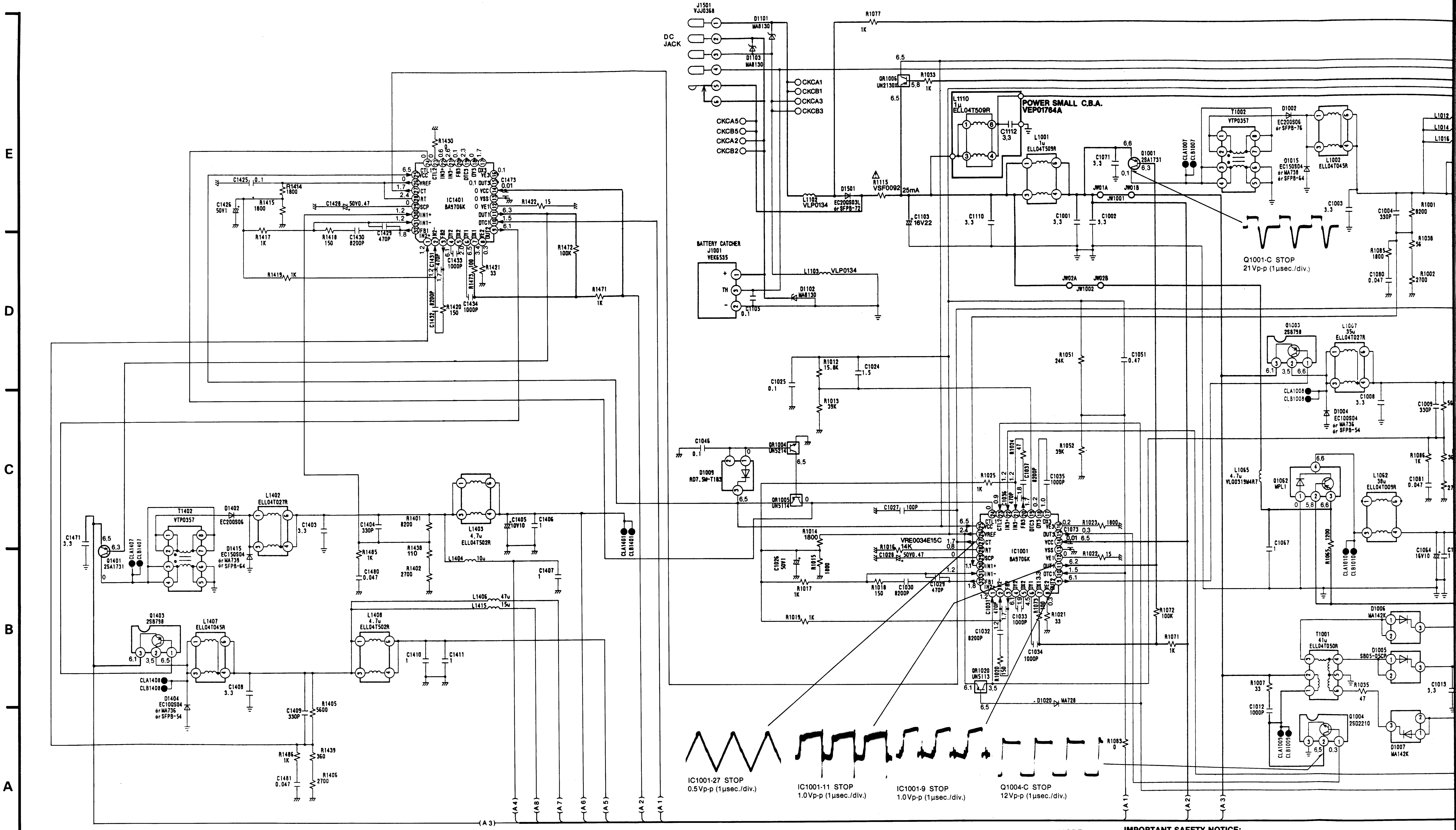

E
D
C
B
A
1
2
3
4
5
6
7
IC201
IC301
IC302
IC304
IC306
IC704
IC703
IC208
IC209
IC210
X201
FL201
FL301
FP301
P301
PP201
PP302
QR306
QR305
QR701
QR702
Q310
Q202
Q203
CKA
CKP
CKD
CKZ
CKC
CKE
TL301
TL302
TL303
TL304
TL305
TL306
TL307
TL308
TL309
TL702
C290
W212
W213
W284
W285
W302
W309
W311
W319
W350

NOTE: MULTI LAYER C.B.A
This C.B.A is Multi-Layer C.B.A
This Circuit Board Layout shows Component layout-pattern for Component side and Foil Side.
Layout-patterns are single pattern for each side that make easy to sight the Component layout.

(COMPONENT SIDE)


C264
L218
C256
L214
C242
R246
C247
L216
C236
L207
L210
C253
R233
R234
L209
C237
C222
W266
W216
C266
R276
C267
R275
R274
C259
C266
IC202
IC207
R271
C241
R272
R258
R267
L215
C243
C244
R247
IC205
IC204
IC212
R259
R277
R262
C248
FL203
W211
L208
C230
C232
Q207
C231
C219
R221
C218
D209
R231
R232
D210
R229
R230
Q206
C229
C228
C227
D203
R282
D202
L202
R201
C265
C254
R273
IC206
R253
R256
R257
D212
D207
R227
R228
R226
D208
R225
Q205
C225
R238
C271
L204
C221
W201
D306
R439
R441
Q304
W203
R449
Q305
Q302
Q303
R438
R444
C346
IC316
Q301
R250
R251
C245
R252
R249
C224
C223
D205
D206
W204
R239
R222
C201
R263
R245
R244
R248
R242
R223
R224
C226
Q201
R451
R450
R445
R443
R366
C347
R452
R264
W215
FL202
W207
W206
R241
W219
R243
R279
R240
R202
C202
R447
C337
C338
C339
C345
IC309
R437
R436
R446
L318
R470
C340
R435
R434
R432
R431
R430
C335
C336
R401
D305
R280
W312
C205
L213
R255
C208
C206
C209
R210
R213
R211
C211
C210
R218
IC203
R207
R219
R217
R216
R215
C214
C215
C213
C217
C216
R214
R212
IC314
FP701
Q702
R717
R718
R712
R711
R713
R716
R714
R715
R725
R724
R723
R726
R722
R720
C704
C703
L702
C710
Q701
R412
R411
R415
R407
QR304
C329
C330
C331
R410
R409
R413
C305
L306
L307
Q306
L304
C308
C309
R350
R352
R354
R356
R351
R353
R355
R357
R365
R364
R363
R362
R361
R360
R359
R358
IC303
R471
R472
L317
W317
C334
313
W318
L309
W351
IC307
C319
R467
R466
R355
IC311
R469
R344
R468
R336
QR303
R338
R341
C320
R343
R406
R337
R342
R340
R706
C708
C707
R701
C702
IC701
C326
C325
C701
D301
IC702
L701
L703
X301
C318
C316
R332
W304
W305
R333
R334
W307
R429
R428
R427
R426
R705
C706
(FOIL SIDE)
8
9
10
11
12
13
14

3-20. POWER SCHEMATIC DIAGRAM


J1501
VJJ0368
DC JACK
D1101
MA8130
D1103
MA8130
R1077
1K
CKCA1
CKCB1
CKCA3
CKCB3
CKCA5
CKCB5
CKCA2
CKCB2
QR1006
UN2130X
R1033
1K
L1110
1u
ELL04T509R
POWER SMALL C.B.A.
VEP01764A
C1112
3.3
L1001
1u
ELL04T509R
Q1001
2SA1731
T1002
VTP0357
D1002
EC20QS06
or SFPB-76
D1015
EC15QS04
or MA738
or SFPB-64
L1002
ELL04T045R
L1012
L1014
L1016
D1501
EC20QS03L
or SFPB-72
L1102
VLP0134
R1115
VSF0092
25mA
C1103
16V22
C1110
3.3
C1071
3.3
JW01A
JW01B
JW1001
C1001
3.3
C1002
3.3
C1003
3.3
C1004
330P
R1001
8200
R1038
56
R1085
1800
C1080
0.047
R1002
2700
Q1001-C STOP
21Vp-p (1µsec./div.)
BATTERY CATCHER
J1001
VEK6535
L1103
VLP0134
D1102
MA8130
C1105
0.1
JW02A
JW02B
JW1002
IC1401
BA9706K
R1430
C1425
R1414
1800
C1426
50V1
R1415
1800
R1417
1K
C1428
50V0.47
R1418
150
C1430
8200P
C1429
470P
C1433
1000P
C1473
0.01
R1422
15
R1472
100K
R1421
33
R1419
1K
R1471
1K
C1432
8200P
R1420
150
C1434
1000P
C1471
3.3
Q1401
2SA1731
CLA1407
CLB1407
T1402
VTP0357
D1402
EC20QS06
D1415
EC15QS04
or MA739
or SFPB-64
L1402
ELL04T027R
C1403
3.3
C1404
330P
R1401
8200
R1485
1K
R1438
110
C1480
0.047
R1402
2700
L1403
4.7u
ELL04T502R
C1405
10V10
C1406
1
L1404
10u
C1407
1
CLA1401
CLB1401
L1406
47u
L1415
15u
Q1403
2SB798
L1407
ELL04T045R
CLA1408
CLB1408
D1404
EC10QS04
or MA736
or SFPB-54
C1408
3.3
L1408
4.7u
ELL04T502R
C1410
1
C1411
1
C1409
330P
R1405
5600
R1486
1K
R1439
360
C1481
0.047
R1406
2700
C1046
0.1
D1009
RD7.5M-T1B3
QR1004
UN5214
QR1005
UN5114
R1012
15.8K
C1024
1.5
C1025
0.1
R1013
39K
R1051
24K
C1051
0.47
Q1003
2SB798
L1007
35u
ELL04T027R
CLA1008
CLB1008
D1004
EC10QS04
or MA736
or SFPB-54
C1008
3.3
C1009
330P
IC1001
BA9706K
VRE0034E15C
14K
R1016
C1028
50V0.47
C1027
100P
R1014
1800
C1026
50V1
R1015
1800
R1017
1K
R1018
150
C1030
8200P
C1029
470P
R1019
1K
R1025
1K
R1024
47
C1037
8200P
R1052
39K
C1035
1000P
R1023
1800
C1073
0.3
R1022
15
C1032
8200P
C1033
1000P
R1021
33
C1034
1000P
QR1020
UN5113
D1020
MA728
R1072
100K
R1071
1K
L1065
4.7u
VLQ0319M4R7
Q1062
MPL1
L1062
38u
ELL04T009R
R1086
1K
C1081
0.047
C1067
1
R1065
1200
CLA1010
CLB1010
C1064
16V10
D1006
MA142K
T1001
41u
ELL04T050R
D1005
SB05-05CP
R1007
33
R1035
47
C1013
3.3
C1012
1000P
CLA1003
CLB1003
Q1004
2SD2210
D1007
MA142K
R1083
0
IC1001-27 STOP
0.5Vp-p (1µsec./div.)
IC1001-11 STOP
1.0Vp-p (1µsec./div.)
IC1001-9 STOP
1.0Vp-p (1µsec./div.)
Q1004-C STOP
12Vp-p (1µsec./div.)
A4
A8
A7
A6
A5
A2
A1
A3
E
D
C
B
A

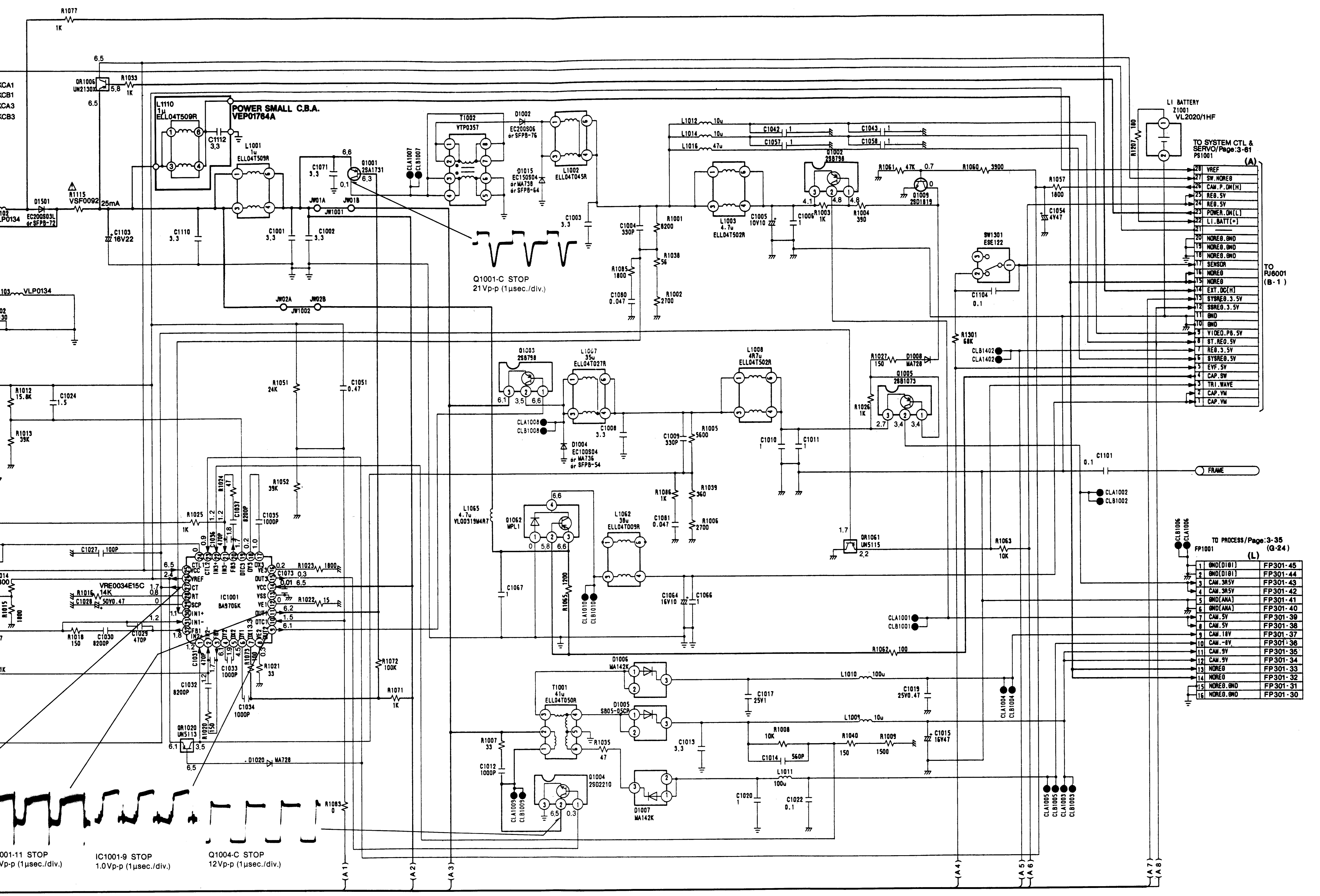
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

1 2 3 4 5 6 7 8 9

Back Page:
CAMERA MAIN C.B.A. Section

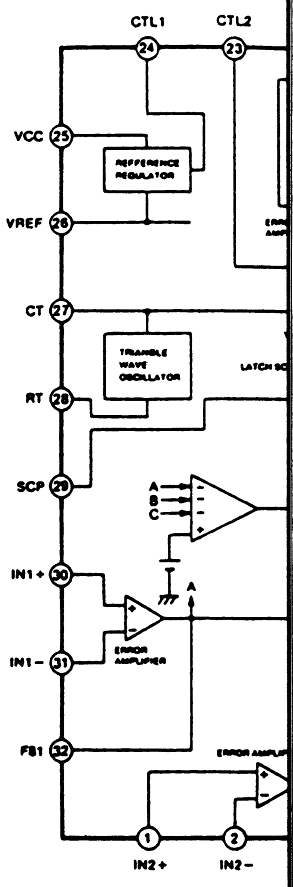

R1077
1K
6.5
QR1006
UN2130X
R1033
1K
5.8
L1110
1u
ELL04T509R
POWER SMALL C.B.A.
VEP01764A
C1112
3.3
L1001
1u
ELL04T509R
T1002
VTP0357
D1002
EC20QS06
or SFPB-76
D1015
EC15QS04
or MA738
or SFPB-64
L1002
ELL04T045R
Q1001
2SA1731
6.6
6.3
0.1
C1071
3.3
CLA1007
CLB1007
D1501
EC20QS03L
or SFPB-72
⚠
R1115
VSF0092
25mA
C1103
16V22
C1110
3.3
C1001
3.3
C1002
3.3
JW01A
JW01B
JW1001
JW02A
JW02B
JW1002
C1003
3.3
Q1001-C STOP
21Vp-p (1µsec./div.)
VLP0134
L1012 10u
L1014 10u
L1016 47u
C1042 1
C1057 1
C1043 1
C1058 1
Q1002
2SB798
4.1
4.8
4.8
R1003
1K
R1004
390
R1061 47K
0.7
Q1009
2SD1819
R1060 3900
L1003
4.7u
ELL04T502R
C1005
10V10
C1006
1
C1004
330P
R1001
8200
R1038
56
R1085
1800
C1080
0.047
R1002
2700
LI BATTERY
Z1001
VL2020/1HF
R1207
180
R1057
1800
C1054
4V47
SW1301
ESE122
C1104
0.1
R1301
68K
CLB1402
CLA1402
R1027 150
D1008
MA728
Q1005
2SB1073
R1026
1K
2.7
3.4
3.4
TO SYSTEM CTL &
SERVO/Page:3-61
PS1001
(A)
28 VREF
27 SW.NOREG
26 CAM.P.ON(H)
25 REG.5V
24 REG.5V
23 POWER.ON(L)
22 LI.BATT(+)
21 ——
20 NOREG.GND
19 NOREG.GND
18 NOREG.GND
17 SENSOR
16 NOREG
15 NOREG
14 EXT.DC(H)
13 SYSREG.3.5V
12 SSREG.3.5V
11 GND
10 GND
9 VIDEO.PB.5V
8 ST.REG.5V
7 REG.3.5V
6 SYSREG.5V
5 EVF.5V
4 CAP.SW
3 TRI.WAVE
2 CAP.VM
1 CAP.VM
TO
PJ6001
(B-1)
R1012
15.8K
C1024
1.5
R1013
39K
R1051
24K
C1051
0.47
Q1003
2SB798
6.1
3.5
6.6
L1007
35u
ELL04T027R
CLA1008
CLB1008
D1004
EC10QS04
or MA736
or SFPB-54
C1008
3.3
L1008
4R7u
ELL04T502R
C1009
330P
R1005
5600
C1010
1
C1011
1
C1101
0.1
FRAME
CLA1002
CLB1002
R1025
1K
C1027 100P
R1024
47
C1037
8200P
C1035
1000P
R1052
39K
L1065
4.7u
VLQ0519M4R7
Q1062
MPL1
6.6
0
5.8
6.6
R1086
1K
R1039
360
C1081
0.047
R1006
2700
L1062
39u
ELL04T009R
1.7
QR1061
UN5115
2.2
R1063
10K
CLB1006
CLA1006
TO PROCESS/Page:3-35
(G-24)
FP1001
(L)
1 GND(DIGI) FP301-45
2 GND(DIGI) FP301-44
3 CAM.3R5V FP301-43
4 CAM.3R5V FP301-42
5 GND(ANA) FP301-41
6 GND(ANA) FP301-40
7 CAM.5V FP301-39
8 CAM.5V FP301-38
9 CAM.18V FP301-37
10 CAM.-8V FP301-36
11 CAM.9V FP301-35
12 CAM.9V FP301-34
13 NOREG FP301-33
14 NOREG FP301-32
15 NOREG.GND FP301-31
16 NOREG.GND FP301-30
IC1001
BA9706K
VRE0034E15C
R1016 14K
C1028 50V0.47
R1018 150
C1030 8200P
C1029 470P
R1023 1800
C1073 0.3
R1022 15
6.5
2.4
1.7
0.8
1.2
1.8
6.2
1.5
6.1
C1067
1
R1065 1200
CLA1010
CLB1010
C1064
16V10
C1066
1
CLA1001
CLB1001
R1062 100
R1072
100K
R1071
1K
C1032
8200P
C1033
1000P
C1034
1000P
R1021
33
QR1020
UN5113
6.1
3.5
6.5
R1020 150
D1020 MA728
D1006
MA142K
T1001
41u
ELL04T050R
D1005
SB05-05CP
R1035
47
R1007
33
C1012
1000P
Q1004
2SD2210
6.5
0.3
CLA1009
CLB1009
C1013
3.3
D1007
MA142K
L1010 100u
C1017
25V1
C1019
25V0.47
L1009 10u
R1008
10K
R1040
150
R1009
1500
C1015
16V47
C1014 560P
L1011
100u
C1020
1
C1022
0.1
CLA1004
CLB1004
CLA1005
CLB1005
CLA1003
CLB1003
R1083
0
001-11 STOP
Vp-p (1µsec./div.)
IC1001-9 STOP
1.0Vp-p (1µsec./div.)
Q1004-C STOP
12Vp-p (1µsec./div.)
A1
A2
A3
A4
A5
A6
A7
A8
6
7
8
9
10
11
12
13

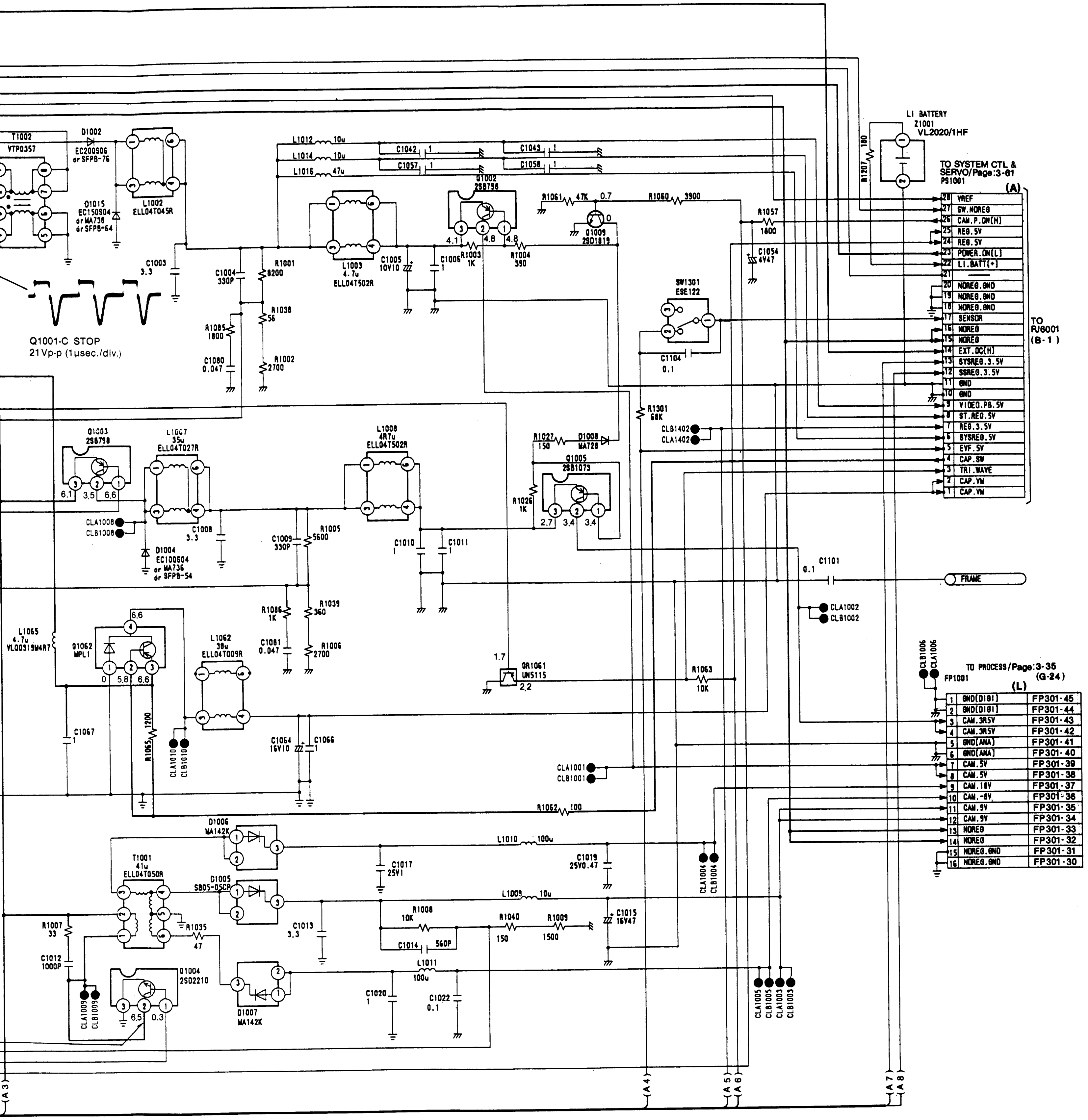
T MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

IC BLOCK

IC1001 (BA9706K)
(LOCATION: B-7)


CTL1
CTL2
24
23
VCC
25
REFERENCE REGULATOR
VREF
26
CT
27
TRIANGLE WAVE OSCILLATOR
RT
28
LATCH
SCP
29
A
B
C
IN1+
30
IN1-
31
ERROR AMPLIFIER
FB1
32
ERROR AMPLI
1
2
IN2+
IN2-


T1002
VTP0357
D1002
EC200S06
or SFPB-76
D1015
EC150S04
or MA738
or SFPB-64
L1002
ELL04T045R
C1003
3.3
Q1001-C STOP
21Vp-p (1μsec./div.)
L1012 10u
L1014 10u
L1016 47u
C1042 1
C1043 1
C1057 1
C1058 1
Q1002
2SB798
R1061 47K
R1060 3900
Q1009
2SD1819
R1003
1K
R1004
390
C1004
330P
R1001
8200
L1003
4.7u
ELL04T502R
C1005
10V10
C1006
1
R1038
56
R1085
1800
R1002
2700
C1080
0.047
R1057
1800
C1054
4V47
SW1301
ESE122
C1104
0.1
R1301
68K
CLB1402
CLA1402
R1207 180
LI BATTERY
Z1001
VL2020/1HF
TO SYSTEM CTL &
SERVO/Page:3-61
PS1001
(A)
28 VREF
27 SW.NOREG
26 CAM.P.ON(H)
25 REG.5V
24 REG.5V
23 POWER.ON(L)
22 LI.BATT(+)
21 ———
20 NOREG.GND
19 NOREG.GND
18 NOREG.GND
17 SENSOR
16 NOREG
15 NOREG
14 EXT.DC(H)
13 SYSREG.3.5V
12 SSREG.3.5V
11 GND
10 GND
9 VIDEO.PB.5V
8 ST.REG.5V
7 REG.3.5V
6 SYSREG.5V
5 EVF.5V
4 CAP.SW
3 TRI.WAVE
2 CAP.VM
1 CAP.VM
TO
PJ6001
(B-1)
Q1003
2SB798
L1007
35u
ELL04T027R
L1008
4R7u
ELL04T502R
R1027 150
D1008
MA728
Q1005
2SB1073
R1026
1K
CLA1008
CLB1008
D1004
EC100S04
or MA736
or SFPB-54
C1008
3.3
C1009
330P
R1005
5600
C1010
1
C1011
1
C1101
0.1
FRAME
CLA1002
CLB1002
L1065
4.7u
VL00519M4R7
Q1062
MPL1
L1062
38u
ELL04T009R
R1086
1K
R1039
360
C1081
0.047
R1006
2700
QR1061
UN5115
R1063
10K
C1067
1
R1065 1200
CLA1010
CLB1010
C1064
16V10
C1066
CLA1001
CLB1001
R1062 100
CLB1006
CLA1006
TO PROCESS/Page:3-35
(G-24)
FP1001
(L)
1 GND(DIGI) FP301-45
2 GND(DIGI) FP301-44
3 CAM.3R5V FP301-43
4 CAM.3R5V FP301-42
5 GND(ANA) FP301-41
6 GND(ANA) FP301-40
7 CAM.5V FP301-39
8 CAM.5V FP301-38
9 CAM.18V FP301-37
10 CAM.-8V FP301-36
11 CAM.9V FP301-35
12 CAM.9V FP301-34
13 NOREG FP301-33
14 NOREG FP301-32
15 NOREG.GND FP301-31
16 NOREG.GND FP301-30
D1006
MA142K
T1001
41u
ELL04T050R
D1005
SB05-05CP
L1010 100u
C1017
25V1
C1019
25V0.47
L1009 10u
R1008
10K
R1040
150
R1009
1500
C1015
16V47
C1014 560P
L1011
100u
C1013
3.3
R1035
47
R1007
33
C1012
1000P
Q1004
2SD2210
D1007
MA142K
C1020
1
C1022
0.1
CLA1004
CLB1004
CLA1005
CLB1005
CLA1003
CLB1003
CLA1009
CLB1009
(A3)
(A4)
(A5)
(A6)
(A7)
(A8)

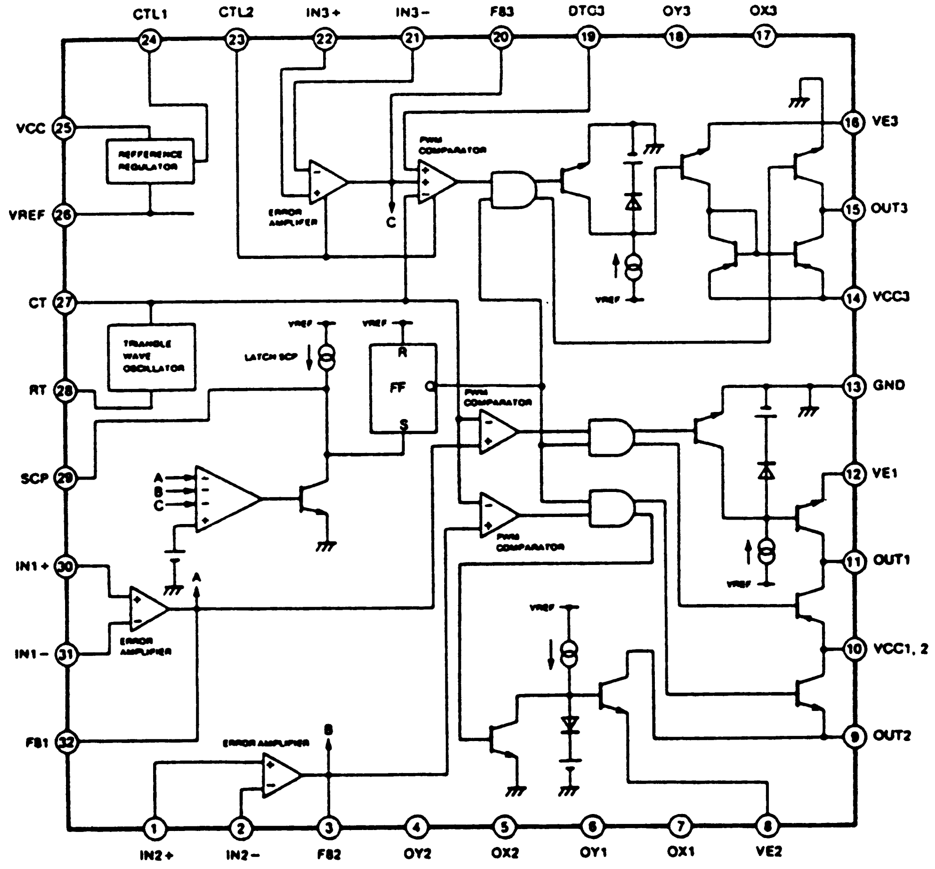
TICE:
TH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
ESE COMPONENTS, USE ONLY THE SAME TYPE.

9 10 11 12 13

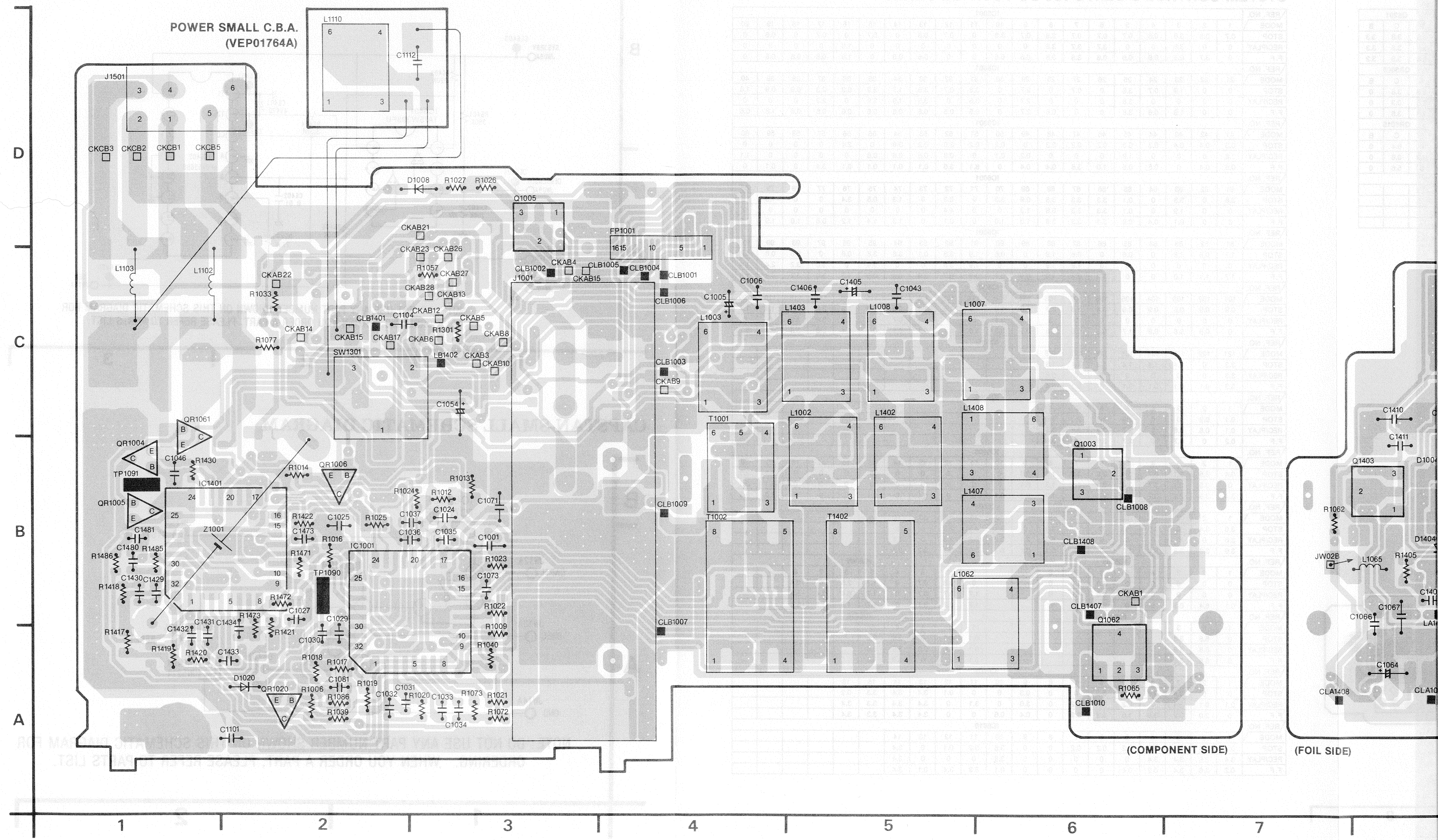
IC BLOCK

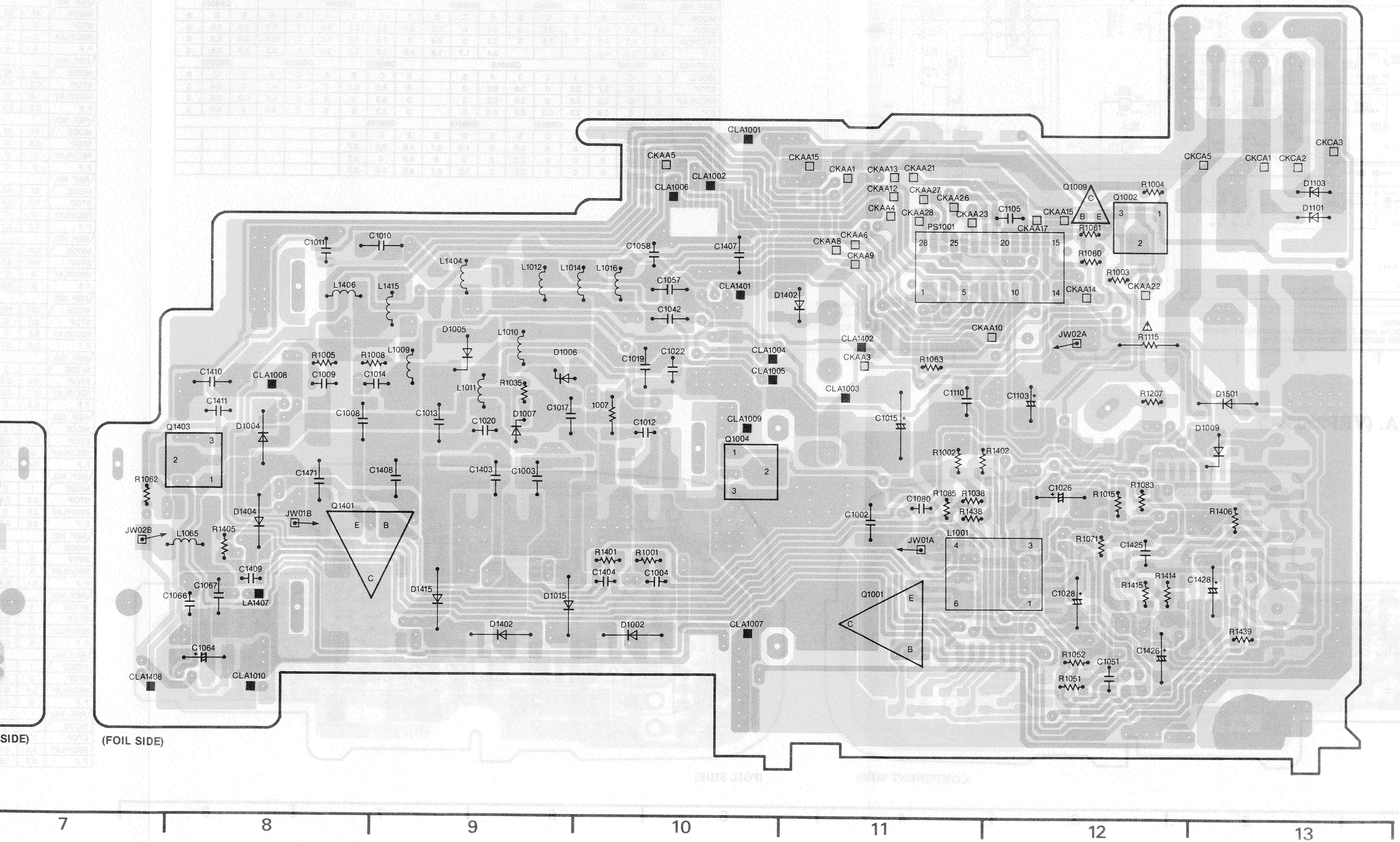
IC1001 (BA9706K)
(LOCATION: B-7)

IC1401 (BA9706K)
(LOCATION: E-3)


CTL1
CTL2
IN3+
IN3−
FB3
DTC3
OY3
OX3
VCC
VREF
CT
RT
SCP
IN1+
IN1−
FB1
VE3
OUT3
VCC3
GND
VE1
OUT1
VCC1, 2
OUT2
REFFERENCE REGULATOR
TRIANGLE WAVE OSCILLATOR
ERROR AMPLIFIER
PWM COMPARATOR
LATCH SCP
FF
ERROR AMPLIFIER
IN2+
IN2−
FB2
OY2
OX2
OY1
OX1
VE2

3-21. POWER C.B.A. (VEP01638A)


POWER SMALL C.B.A.
(VEP01764A)
L1110
C1112
J1501
CKCB3
CKCB2
CKCB1
CKCB5
L1103
L1102
D1008
R1027
R1026
Q1005
CKAB21
CKAB23
CKAB26
R1057
CKAB27
CKAB28
CKAB13
CKAB22
R1033
CKAB12
CKAB5
CKAB14
CLB1401
C1104
R1301
CKAB8
CKAB15
CKAB17
CKAB6
R1077
LB1402
CKAB3
CKAB10
SW1301
C1054
FP1001
CLB1002
CKAB4
CLB1005
CLB1004
CLB1001
J1001
CKAB15
CLB1006
C1005
C1006
C1406
C1405
C1043
L1403
L1008
L1007
L1003
CLB1003
CKAB9
T1001
L1002
L1402
L1408
Q1003
L1407
CLB1008
CLB1009
T1002
T1402
CLB1408
L1062
CKAB1
CLB1407
Q1062
CLB1007
R1065
CLB1010
QR1061
QR1004
C1046
R1430
TP1091
IC1401
QR1005
R1014
QR1006
R1013
C1071
R1024
R1012
R1422
C1025
R1025
C1037
C1024
C1473
C1036
C1035
Z1001
R1016
C1001
C1481
C1480
R1485
R1486
R1471
IC1001
R1023
C1073
C1430
C1429
R1418
TP1090
R1472
C1027
R1022
R1473
C1432
C1431
C1434
R1421
C1029
R1009
R1417
C1030
R1040
R1419
R1420
C1433
R1018
R1017
C1081
R1019
C1031
D1020
QR1020
R1006
R1086
C1032
R1020
C1033
R1073
R1021
R1039
C1034
R1072
C1101
(COMPONENT SIDE)
C1410
C1411
Q1403
D1004
R1062
D1404
JW02B
L1065
R1405
C1067
C1066
C1064
CLA1408
(FOIL SIDE)
D
C
B
A
1
2
3
4
5
6
7

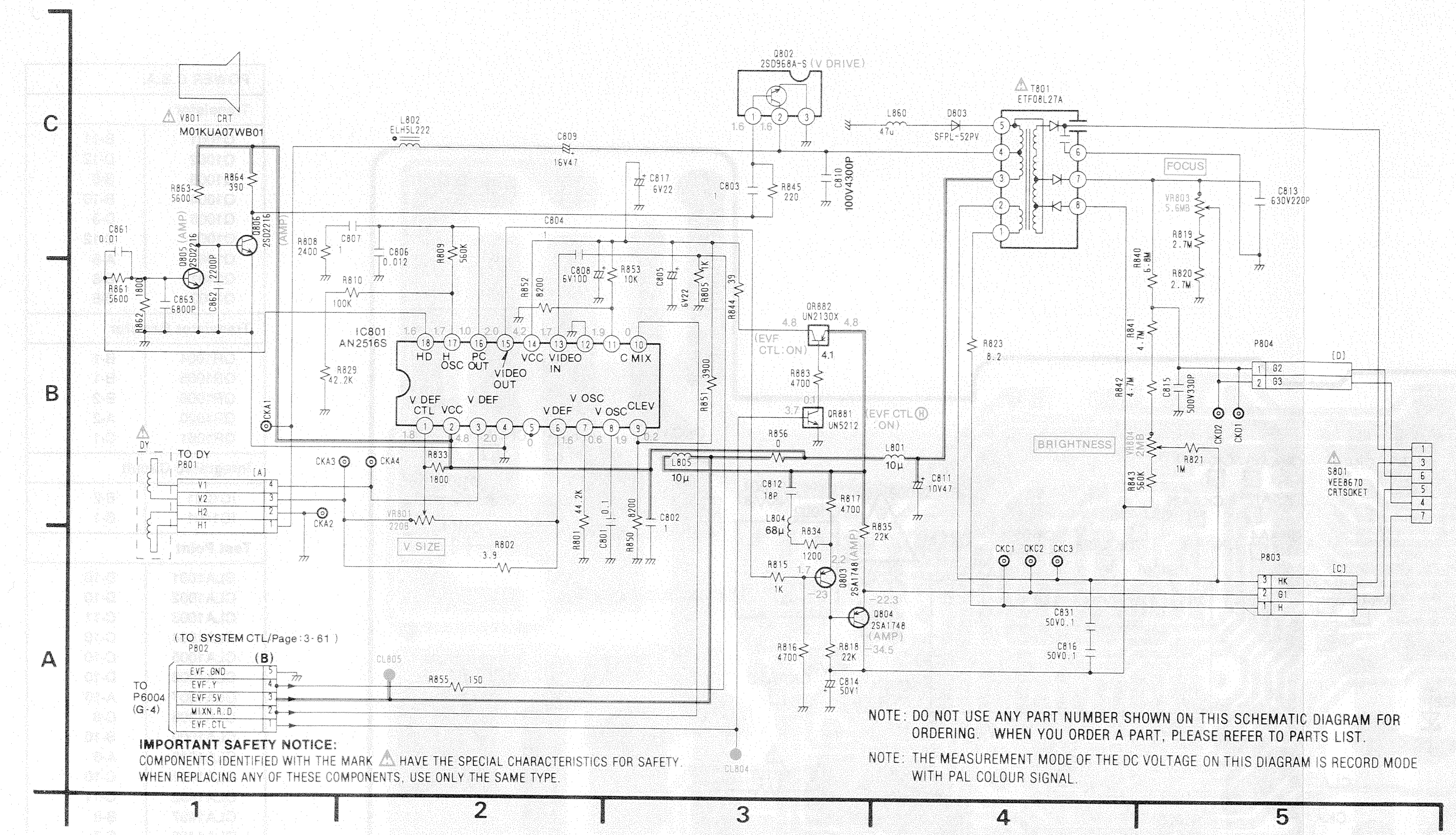

SIDE)
CLA1001
CKAA5
CKAA15
CKAA1
CKAA13
CKAA21
CLA1002
CLA1006
CKAA12
CKAA27
CKAA26
CKAA4
CKAA28
CKAA23
PS1001
C1105
CKAA15
CKAA17
Q1009
R1004
Q1002
CKCA5
CKCA1
CKCA2
CKCA3
D1103
D1101
R1061
R1060
R1003
CKAA22
CKAA14
CKAA8
CKAA6
CKAA9
C1011
C1010
C1058
C1407
L1404
L1012
L1014
L1016
C1057
CLA1401
D1402
L1406
L1415
C1042
D1005
L1010
D1006
CLA1402
CKAA3
CKAA10
JW02A
R1115
R1063
CLA1004
CLA1005
C1019
C1022
R1005
R1008
L1009
C1410
CLA1008
C1009
C1014
R1035
L1011
C1411
C1008
C1013
C1020
D1007
C1017
1007
C1012
CLA1003
C1110
C1103
R1207
D1501
CLA1009
C1015
Q1403
D1004
Q1004
D1009
R1002
R1402
R1062
C1471
C1408
C1403
C1003
Q1401
D1404
JW01B
E
B
C
JW02B
L1065
R1405
C1080
R1085
R1038
R1438
C1026
R1015
R1083
C1002
R1406
L1001
JW01A
R1071
C1425
R1401
R1001
C1409
C1404
C1004
C1067
C1066
LA1407
D1415
D1015
Q1001
C1028
R1414
R1415
C1428
D1402
D1002
CLA1007
R1439
C1064
R1052
C1051
C1426
R1051
CLA1408
CLA1010
7
8
9
10
11
12
13

(FOIL SIDE)

POWER C.B.A.	
Transistor	
Q1001	B-11
Q1002	D-12
Q1003	B-6
Q1004	B-10
Q1005	D-3
Q1009	D-12
Q1062	A-6
Q1401	B-8
Q1403	B-8
Transistor Resistor	
QR1004	B-1
QR1005	B-1
QR1006	B-2
QR1020	A-2
QR1061	C-1
Integrated Circuit	
IC1001	B-2
IC1401	B-1
Test Point	
CLA1001	D-10
CLA1002	D-10
CLA1003	C-11
CLA1004	C-10
CLA1005	C-10
CLA1006	D-10
CLA1007	A-10
CLA1008	C-8
CLA1009	B-10
CLA1010	A-8
CLA1401	C-10
CLA1402	C-11
CLA1407	B-8
CLA1408	B-7
CLB1001	C-4
CLB1002	C-3
CLB1003	C-4
CLB1004	C-4
CLB1005	C-4
CLB1006	C-4
CLB1007	B-4
CLB1008	B-6
CLB1009	B-4
CLB1010	A-6
CLB1401	C-2
CLB1402	C-3
CLB1407	B-6
CLB1408	B-6
TP1090	B-2
TP1091	B-1
Connector	
FP1001	D-4
J1501	D-1
PS1001	C-11

ADDRESS INFORMATION

3-22. EVF SCHEMATIC DIAGRAM

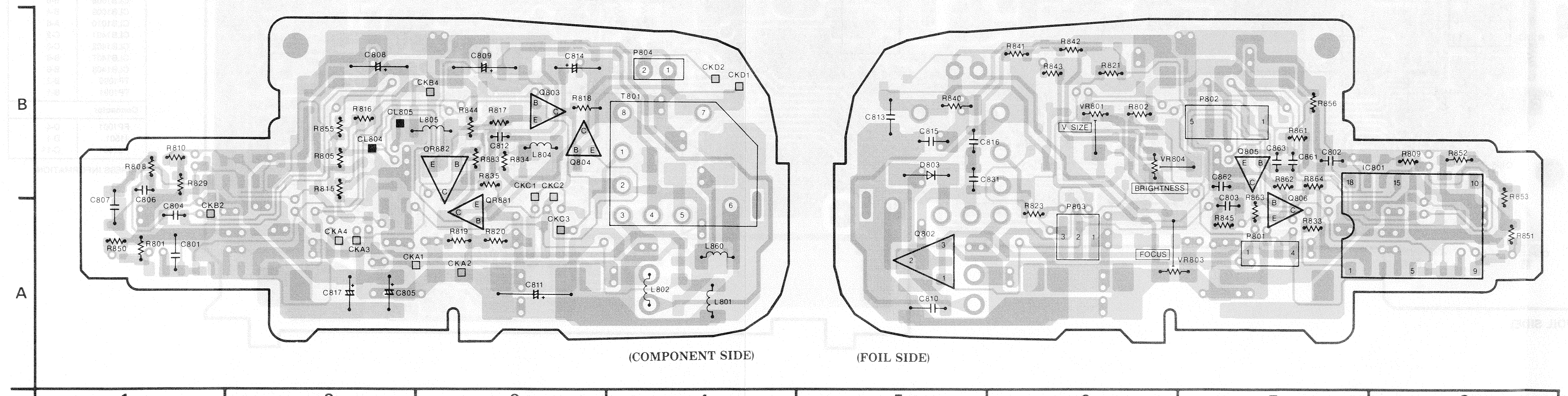

C
B
A
1
2
3
4
5
V801 CRT
M01KUA07WB01
Q805 2SD2216 (AMP)
Q806 2SD2216 (AMP)
R863 5600
R864 390
C861 0.01
R861 5600
R862 1800
C863 6800P
C862 2200P
L802 ELH5L222
C809 16V47
R808 2400
C807 1
C806 0.012
R809 560K
R810 100K
R829 42.2K
C804 1
C808 6V100
R853 10K
R852 8200
C805 6V22
R805 1K
R844 39
R851 3900
C817 6V22
C803 1
R845 220
C810 100V4300P
IC801 AN2516S
HD
H OSC
PC OUT
VIDEO OUT
VCC
VIDEO IN
C MIX
V DEF CTL
VCC
V DEF
V DEF
V OSC
V OSC
CLEV
CKA1
CKA2
CKA3
CKA4
DY
TO DY
P801
[A]
V1
V2
H2
H1
R833 1800
VR801 220B
V SIZE
R802 3.9
R801 44.2K
C801 0.1
R850 8200
C802 1
L805 10µ
Q802 2SD968A-S (V DRIVE)
L860 47u
D803 SFPL-52PV
T801 ETF08L27A
FOCUS
VR803 5.6MB
R819 2.7M
R820 2.7M
C813 630V220P
R840 6.8M
R841 4.7M
R842 4.7M
C815 500V330P
VR804 2MB
BRIGHTNESS
R821 1M
R843 560K
CKD1
CKD2
P804
[D]
G2
G3
S801 VEE8670 CRTSOKET
QR882 UN2130X
(EVF CTL:ON)
R883 4700
QR881 UN5212
(EVF CTL H :ON)
R856 0
L801 10µ
C811 10V47
C812 18P
L804 68µ
R834 1200
R817 4700
R835 22K
R815 1K
Q803 2SA1748 (AMP)
Q804 2SA1748 (AMP)
R816 4700
R818 22K
C814 50V1
R823 8.2
CKC1
CKC2
CKC3
C831 50V0.1
C816 50V0.1
P803
[C]
HK
G1
H
(TO SYSTEM CTL/Page:3-61)
P802
(B)
EVF.GND
EVF.Y
EVF.5V
MIXN.R.D
EVF.CTL
TO P6004 (G-4)
CL805
R855 150
CL804

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.

3-23. EVF C.B.A. (VEP28086C)


B
A
1
2
3
4
5
6
7
8
C808
C809
C814
P804
CKD2
CKD1
CKB4
Q803
R818
T801
R816
CL805
R844
R817
R855
L805
CL804
C812
R805
QR882
R883
R834
L804
Q804
R835
R815
QR881
CKC1
CKC2
CKC3
R810
R808
R829
C807
C806
C804
CKB2
R819
R820
CKA4
CKA3
CKA1
CKA2
R850
R801
C801
L860
C817
C805
C811
L802
L801
R841
R842
R843
R821
R840
VR801
R802
P802
R856
C813
V SIZE
C815
C816
R861
D803
VR804
Q805
C863
C861
C802
R809
R852
C831
BRIGHTNESS
C862
R862
R864
IC801
R853
C803
R863
Q806
R823
P803
R845
R833
R851
Q802
P801
FOCUS
VR803
C810

(COMPONENT SIDE)

(FOIL SIDE)

SYSTEM CONRTROL & SERVO TRs DC VOLTAGE CHART

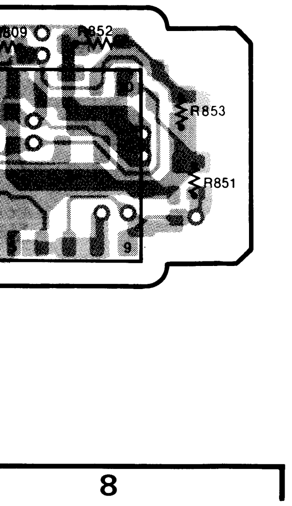
REF. NO.	Q6002			Q6004			Q6005						Q6009			Q6201		
MODE	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B	E	C	B
STOP	0.1	6.6	0	3.0	6.6	0.2	0.1	0.1	4.6	0.1	0.1	4.4	1.7	3.4	0.1	3.8	3.8	3.3
REC/PLAY	0.1	6.6	0	0.8	2.0	0.8	0	0.1	4.6	0.1	0.1	4.4	1.8	1.9	0.1	3.8	3.8	3.3
F.F	1.4	6.4	1.7	3.0	3.8	0.7	0	0	4.6	0.2	0.1	4.4	1.6	0.7	0.1	3.8	3.8	3.2
REF. NO.	QR6001			QR6002			QR6003			QR6004						QR6006		
MODE	E	C	B	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B
STOP	4.9	0.1	4.9	0	3.8	0	3.4	0	3.8	3.8	3.8	3.3	3.4	0	0.1	3.8	3.8	0
REC/PLAY	4.9	2.1	4.8	0	3.8	0	3.4	0	3.8	0	3.8	3.3	3.4	0	0.2	3.8	0.3	0
F.F	4.9	2.1	4.9				3.4	1.7	1.9	3.8	3.8	3.3	3.4	0	0.5	3.8	3.8	0
REF. NO.	QR6007			QR6010						QR6012			QR6014			QR6015		
MODE	E	C	B	1	2	3	4	5		E	C	B	E	C	B	E	C	B
STOP	0	0	3.7	3.0	0	3.0	0.2	0		0	3.0	0.1	0	0	4.7	0	6.4	0
REC/PLAY	0	0	3.8	3.0	0	3.0	0.2	0		0	3.3	0	0	0	4.7	0.3	0.6	0
F.F	0	0	3.8	3.0	0.3	0.3	0.3	0		0	3.3	0	0	0	4.6	0	5.6	0
REF. NO.	QR6016			QR6017			QR6018			QR6019								
MODE	E	C	B	E	C	B	E	C	B	E	C	B						
STOP	0	2.5	0	0	0	2.5	0	1.0	0.1	4.6	3.8	3.7						
REC/PLAY	0	2.5	0	0	0	2.5	0	0	0	4.6	0	3.7						
F.F	0	2.5	0	0	0	2.5	0	1.0	0.1	4.6	3.8	3.7						

SYSTEM C

REF. NO.	
MODE	1
STOP	0.7
REC/PLAY	0
F.F	0
REF. NO.	
MODE	21
STOP	0
REC/PLAY	0
F.F	0
REF. NO.	
MODE	41
STOP	0.3
REC/PLAY	1.8
F.F	0.6
REF. NO.	
MODE	61
STOP	3.8
REC/PLAY	0
F.F	0
REF. NO.	
MODE	81
STOP	1.7
REC/PLAY	0
F.F	1.7
REF. NO.	
MODE	101
STOP	0.9
REC/PLAY	0
F.F	0
REF. NO.	
MODE	121
STOP	3.3
REC/PLAY	3.3
F.F	3.3
REF. NO.	
MODE	1
STOP	0.1
REC/PLAY	0.1
F.F	0.2
REF. NO.	
MODE	1
STOP	0.4
REC/PLAY	0
F.F	3.4
REF. NO.	
MODE	1
STOP	3.0
REC/PLAY	3.0
F.F	3.0
REF. NO.	
MODE	1
STOP	0
REC/PLAY	0
F.F	0.1
REF. NO.	
MODE	1
STOP	0
REC/PLAY	0
F.F	0
REF. NO.	
MODE	1
STOP	0
REC/PLAY	0.1
F.F	0
REF. NO.	
MODE	1
STOP	0.1
REC/PLAY	3.4
F.F	0.2

Back Page:
POWER Section

Q6201		
E	C	B
3.8	3.8	3.3
3.8	3.8	3.3
3.8	3.8	3.2
QR6006		
E	C	B
3.8	3.8	0
3.8	0.3	0
3.8	3.8	0
QR6015		
E	C	B
0	6.4	0
0.3	0.6	0
0	5.6	0

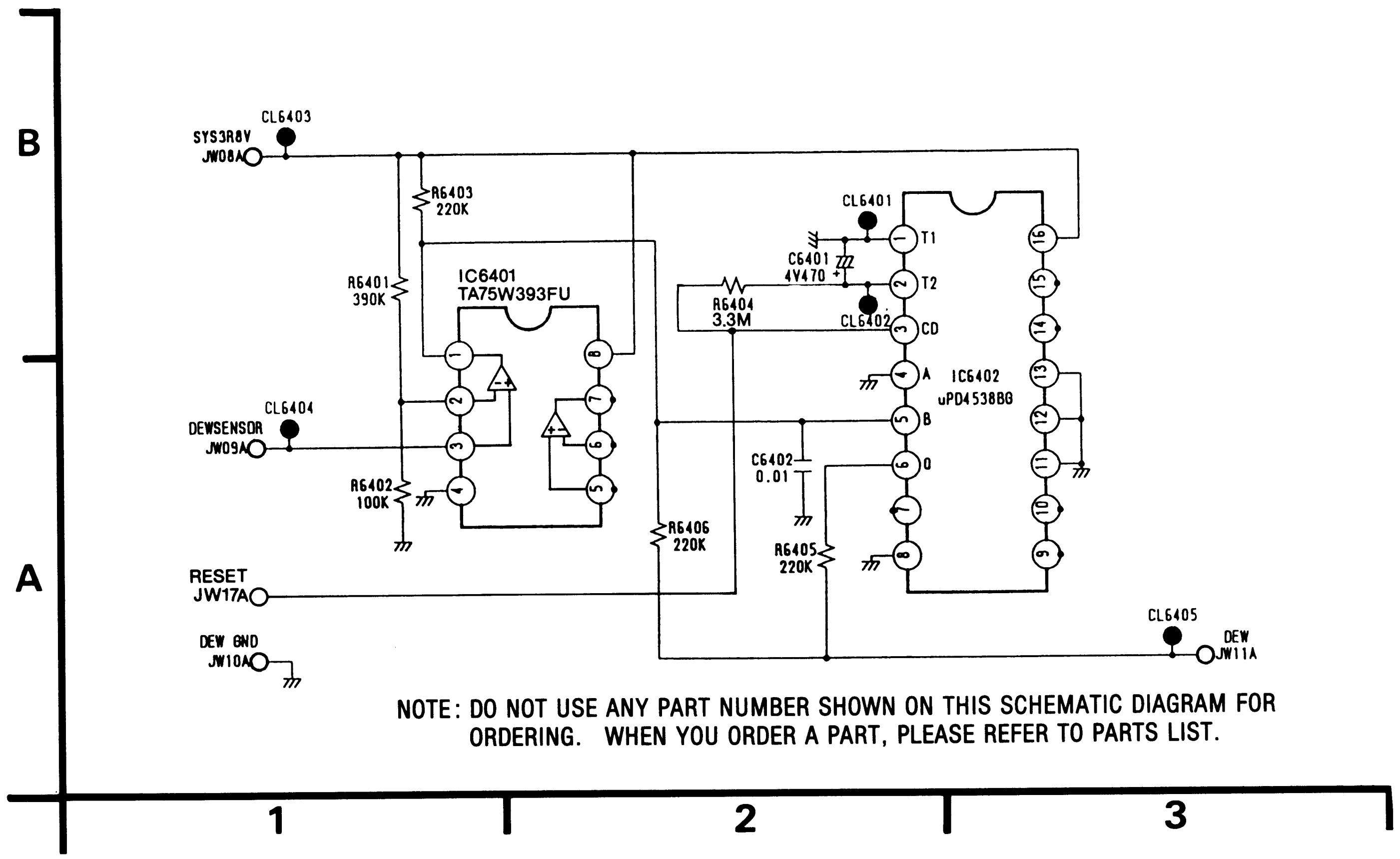


809
R852
R853
R851
9
8

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0.7	0.8	3.8	0.8	0.7	0.7	0.7	3.8	0.7	3.8	0	0.7	0.8	0	0.7	0	0.7	0	0.6	0
REC/PLAY	0	0	3.8	0	0	3.7	3.7	3.8	0	0	0	0	0	0	0	1.9	0	0	0	0
F.F	0	3.7	0.6	0.6	0.6	0.6	3.8	3.8	0.5	0.5	0	0	0.6	0.6	0	1.9	0.6	0.6	0.6	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	1.9	0.7	3.8	0	0.7	0	2.7	0	3.8	0.7	3.6	1.7	2.9	0.9	2.3	0.9	0.9	1.8
REC/PLAY	0	0	0	0	3.8	0	0	0	2.7	0	3.8	0	3.5	1.9	2.9	0	2.3	0	0	0
F.F	0	0	1.9	0.6	3.8	0	0	0.6	2.7	0	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	1.8	0.6
REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0	0.2	0.2	3.0	0.2	3.0	0	2.4	0	0	0	0
REC/PLAY	1.8	0	0	0	1.9	0	0	0	0.2	0.1	0	0.6	0.5	0.6	0.6	0	0	0	0	1.1
F.F	0.6	0.4	0	0.5	0.5	1.0	3.8	0.4	0.4	0	6.1	3.0	0.1	0.1	0.1	0.1	3.4	0	0.1	0
REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.8	0	3.8	0	0.1	3.3	3.3	3.8	0.9	3.3	0	0.3	0	1.3	0.5	3.4	0	0	1.9	1.9
REC/PLAY	0	0	1.9	0	0.1	3.3	3.3	3.8	1.3	0	0	4.4	0	0	0	0	0	0	0	0
F.F	0	0	0.1	0.4	0.8	3.3	3.3	3.8	1.0	1.0	0	0.1	0	1.3	1.4	1.2	0.8	1.0	1.9	1.9
REF. NO.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	1.7	0.6	3.8	0	0.6	0	0.6	1.9	0	0.6	1.9	3.8	0.1	3.6	3.8	0.8	0	0.6	0.8	1.8
REC/PLAY	0	0	0	0	0	0	1.9	1.9	0	0	1.9	3.8	0	0	3.8	0	3.0	3.2	2.4	1.4
F.F	1.7	1.1	1.0	0	0	1.0	0.8	1.9	0.9	0.7	0.9	0.7	0.9	0.9	0.8	1.3	3.0	3.2	0.9	1.0
REF. NO.	IC6001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0.9	0.9	0.5	0.9	0.9	3.4	3.6	3.3	1.0	1.0	3.8	1.0	1.0	0.9	1.0	1.3	3.8	1.3	1.4	1.4
REC/PLAY	0	0	0	0	0	0	0	0	3.3	3.8	0	0	0.5	0.7	0.7	0.8	3.8	3.8	0	0
F.F	0	0.8	0.8	0.8	1.7	0.5	0.6	0.6	0.5	3.8	1.0	0.1	0.1	0.1	0.1	0.1	3.8	3.8	0.1	0.1
REF. NO.	IC6001																			
MODE	121	122	123	124	125	126	127	128												
STOP	3.3	0	1.4	1.4	1.4	1.3	1.4	1.3												
REC/PLAY	3.3	0	0	0	0	0	0	0.6												
F.F	3.3	0.1	0.1	0.1	0.1	0	0.1	0.4												
REF. NO.	IC6002																			
MODE	1	2	3	4	5	6	7	8												
STOP	0.1	0.9	0	0	2.6	3.6	2.1	3.6												
REC/PLAY	0.1	0.8	0.6	0	2.7	3.6	2.1	3.6												
F.F	0.2	0	0.7	0	2.7	3.6	2.1	3.6												
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0.4	3.5	2.1	0.7	3.4	0.8	1.2	1.3	0.8	0	0	0	0	0	0	0	0	0	3.1	2.5
REC/PLAY	0	3.5	2.1	3.7	3.4	0.1	1.2	1.3	0.1	0	0	0	0	0	0	0	0	0	3.1	2.5
F.F	3.4	3.5	2.1	3.7	3.4	0.1	0.1	1.3	0.1	0.1	0	0	0.1	0	0.1	0	0	0	3.0	0.8
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	3.0	3.4	0	3.0	1.0	0	0	3.3	0	3.1	3.0	2.3	0	0						
REC/PLAY	3.0	0	0	0	0	0	0	3.3	2.1	3.2	3.0	2.3	0	3.4						
F.F	3.0	3.3	3.3	3.0	1.0	0	0	0.1	0.1	3.1	3.0	0.1	0.2	3.4						
REF. NO.	IC6005										IC6006									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	0	0	0	0	0	3.0	1.0	0			0	0.8	0.7	0	1.7	2.5	0	3.4		
REC/PLAY	0	0	0	0	0	3.0	0	0			1.7	0.7	0.7	0	1.7	0.4	3.4	3.4		
F.F	0.1	6.4	0.3	0	0	3.0	0.1	0			1.7	0.7	0.7	0	1.7	1.3	1.7	3.4		
REF. NO.	IC6007										IC6008									
MODE	1	2	3								1	2	3	4	5					
STOP	0	6.6	3.8								0.1	0.1	0	3.8	3.8					
REC/PLAY	0	6.6	3.8								0.1	0	0.3	3.8	3.8					
F.F	0	6.6	3.8								0.1	0	0	3.8	3.8					
REF. NO.	IC6009																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	3.4	3.0	3.3	3.3	0	0	0.3	0	0	0.1	3.4	3.4	3.3	0.2				
REC/PLAY	0.1	0.1	3.4	0	0.2	0	3.2	0	3.0	0	3.1	0	3.4	3.4	3.3	3.4				
F.F	0	2.0	0.2	3.0	1.0	3.3	3.2	0	0.4	0.6	0	0	3.4	3.4	3.3	3.4				
REF. NO.	IC6010																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0.1	3.6	3.4	0.2	0.2	0.2	0.2	0	0	3.8	0.2	0.1	0	3.4						
REC/PLAY	3.4	3.6	3.4	3.4	0	0	0	0	0	3.8	0	0	0	3.4						
F.F	0.2	3.6	3.4	0.2	0.4	0	0	0	0	0.1	3.9	3.4	0.1	3.4						

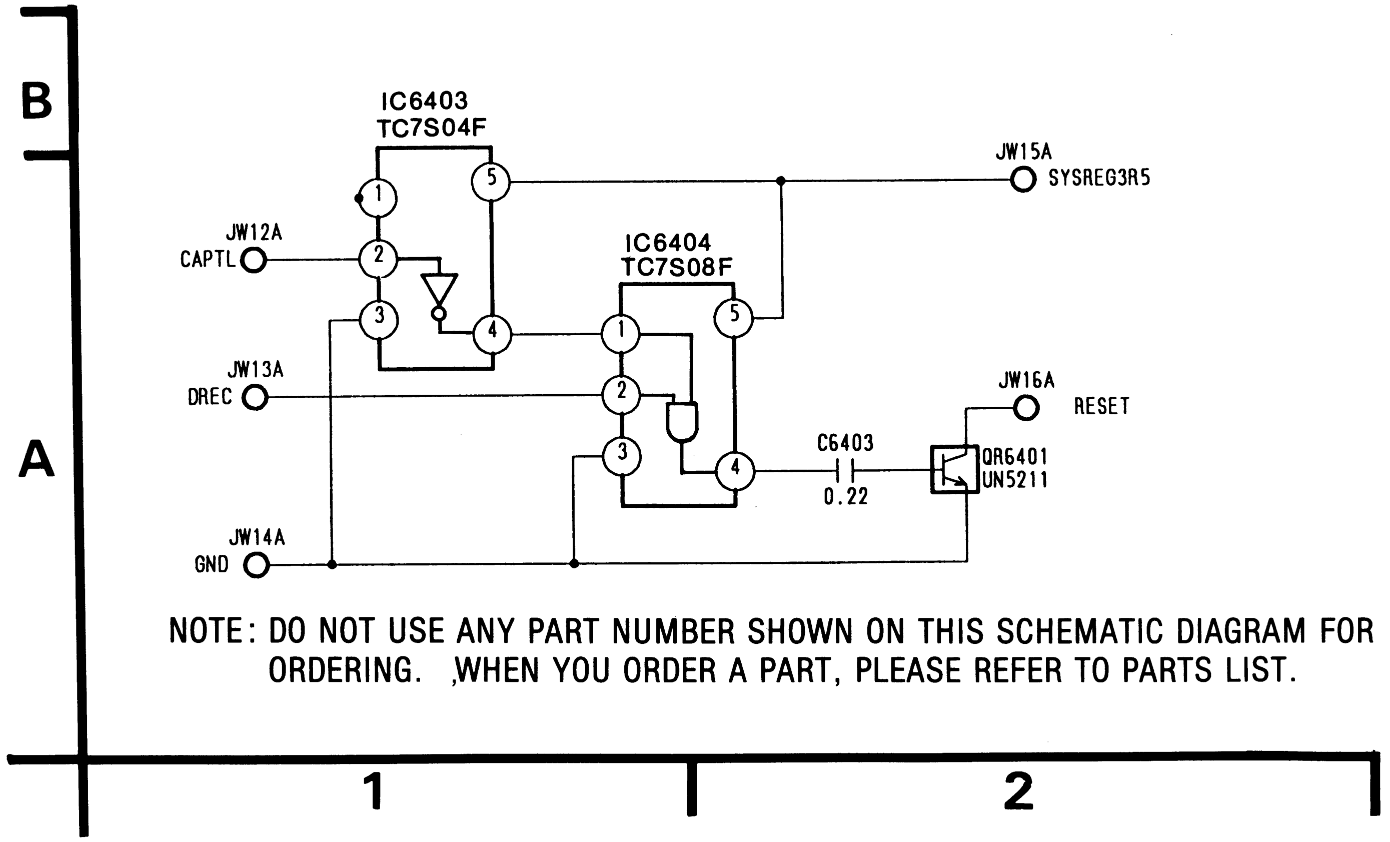
DEW TIMER SCHEMATIC DIAGRAM



B
A
1
2
3
CL6403
SYS3R8V
JW08A
R6403
220K
R6401
390K
IC6401
TA75W393FU
CL6404
DEWSENSOR
JW09A
R6402
100K
RESET
JW17A
DEW GND
JW10A
R6404
3.3M
C6401
4V470
CL6401
CL6402
T1
T2
CD
A
B
Q
IC6402
uPD4538BG
C6402
0.01
R6406
220K
R6405
220K
CL6405
DEW
JW11A

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

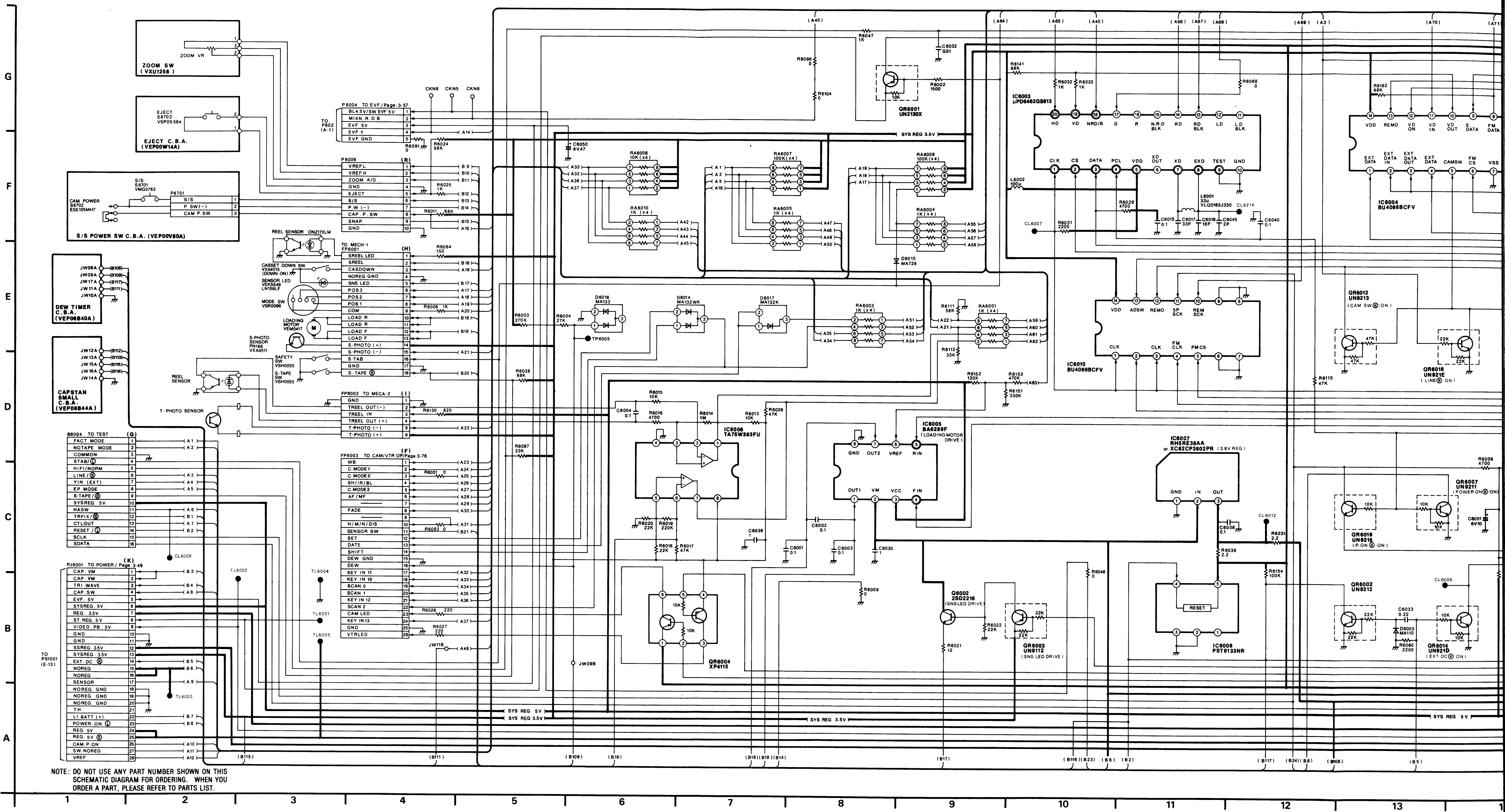
CAPSTAN SMALL SCHEMATIC DIAGRAM



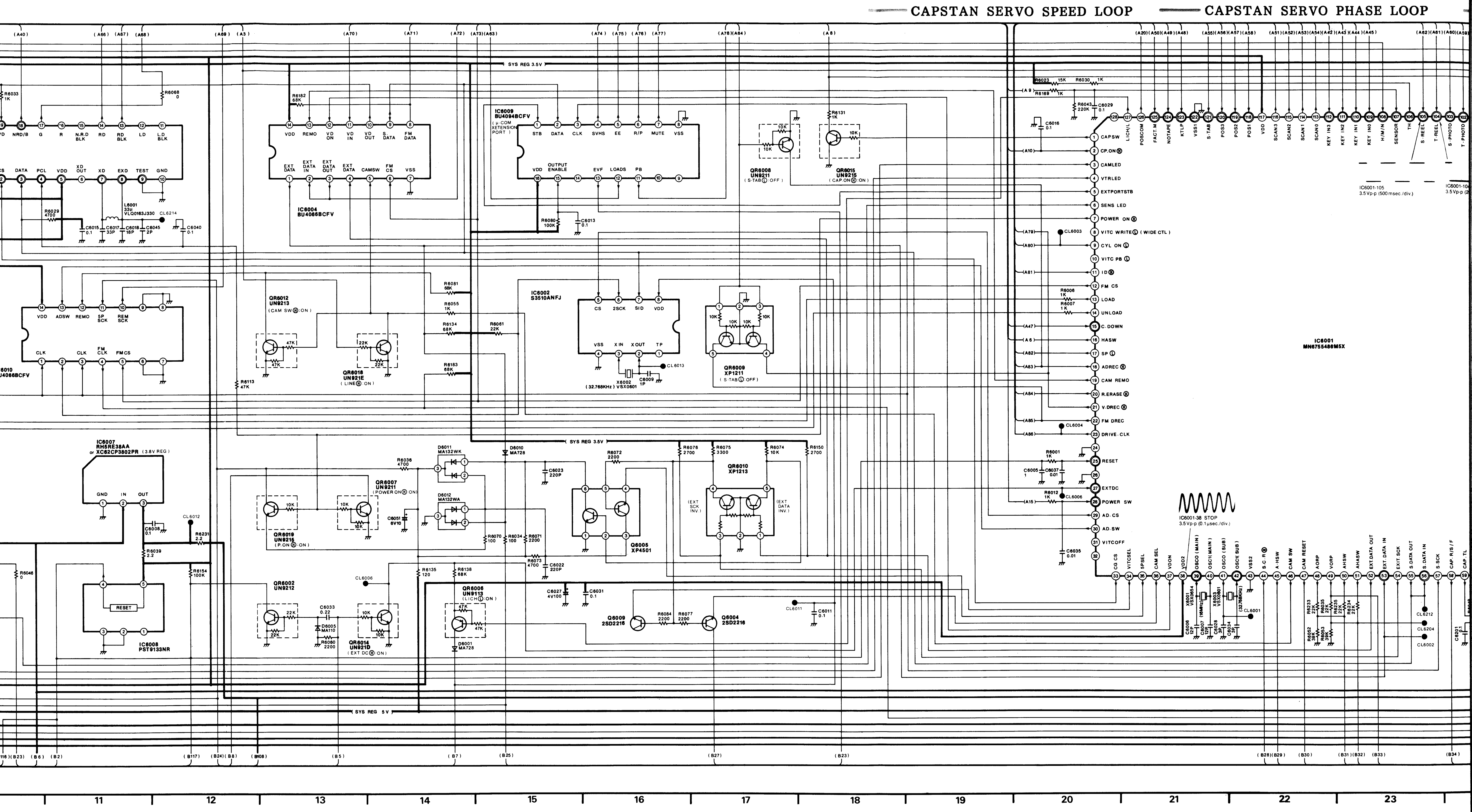
B
A
1
2
IC6403
TC7S04F
JW12A
CAPTL
JW13A
DREC
JW14A
GND
IC6404
TC7S08F
JW15A
SYSREG3R5
JW16A
RESET
C6403
0.22
QR6401
UN5211

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. ,WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-24. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM


ZOOM SW
(VXU1258)
ZOOM VR
EJECT S6703 VSP05584
EJECT C.B.A. (VEP00W14A)
S/S S6701 VMG0763
P6701
S/S
P SW(-)
CAM P.SW
CAM POWER S6702 ESE105MH7
S/S POWER SW C.B.A. (VEP00V80A)
JW08A
JW09A
JW17A
JW11A
JW10A
DEW TIMER C.B.A. (VEP06B40A)
JW12A
JW13A
JW15A
JW16A
JW14A
CAPSTAN SMALL C.B.A. (VEP06B44A)
P6004 TO EVF / Page: 3-57
BL4.5V/SW EVF 5V
MIXN.R.D.B
EVF 5V
EVF Y
EVF GND
TO P802 (A-1)
CKN8
CKN5
CKN6
P6006 (R)
VREF L
VREF H
ZOOM A/D
GND
EJECT
S/S
P.W (-)
CAP P.SW
SNAP
GND
REEL SENSOR ON2170LM
TO MECH-1 FP6001 (H)
SREEL LED
SREEL
CASDOWN
NOREG GND
SNS.LED
POS3
POS2
POS1
COM
LOAD R
LOAD R
LOAD F
LOAD F
S-PHOTO (+)
S-PHOTO (-)
S-TAB
GND
S-TAPE
CASSET DOWN SW VXA4515 (DOWN ON)
SENSOR LED VEK5549 LN159LF
MODE SW VSR0096
LOADING MOTOR VEM0417
S-PHOTO SENSOR PN166 VXA4511
SAFETY SW VSH0055
S-TAPE SW VSH0055
REEL SENSOR
T-PHOTO SENSOR
FP6002 TO MECA-2 (I)
GND
TREEL OUT (-)
TREEL IN
TREEL OUT (+)
T-PHOTO (-)
T-PHOTO (+)
B6004 TO TEST (G)
FACT MODE
NOTAPE MODE
COMMON
STAB/Ⓛ
HIFI/NORM
LINE/Ⓗ
YIN (EXT)
EP MODE
S-TAPE/Ⓛ
SYSREG 5V
HASW
TRFIX/Ⓗ
CTLOUT
RESET/Ⓛ
SCLK
SDATA
CL6006
FP6003 TO CAM/VTR OP/Page: 3-76 (F)
WB
C.MODE1
C.MODE0
SH/IR/BL
C.MODE2
AF/MF
FADE
H/M/N/DIS
SENSOR SW
SET
DATE
SHIFT
DEW GND
DEW
KEY IN 11
KEY IN 10
SCAN 0
SCAN 1
KEY IN 12
SCAN 2
CAM LED
KEY IN 13
GND
VTRLED
PJ6001 TO POWER / Page: 3-49 (K)
CAP. VM
CAP. VM
TRI-WAVE
CAP. SW
EVF. 5V
SYSREG. 5V
REG. 3.5V
ST. REG. 5V
VIDEO PB. 5V
GND
GND
SSREG. 3.5V
SYSREG. 3.5V
EXT. DC Ⓗ
NOREG
NOREG
SENSOR
NOREG GND
NOREG GND
NOREG GND
TH
LI.BATT (+)
POWER. ON Ⓛ
REG. 5V
REG. 5V Ⓗ
CAM. P. ON
SW. NOREG
VREF
TO PS1001 (E-13)
TL6002
TL6004
TL6001
TL6005
TL6003
JW11B
JW09B
TP6005
SYS REG 5V
SYS REG 3.5V
QR6001 UN2130X
R6047 1K
R6085 0
R6104 0
R6002 1500
C6032 0.01
C6050 6V47
RA6008 10K (x4)
RA6007 100K (x4)
RA6006 100K (x4)
RA6010 1K (x4)
RA6005 1K (x4)
RA6004 1K (x4)
D6015 MA728
D6016 MA133
D6014 MA132WK
D6017 MA132K
R6003 270K
R6004 27K
R6038 68K
R6087 33K
R6015 10K
R6016 4700
R6014 1M
R6013 10K
R6026 47K
C6004 0.1
IC6006 TA75W393FU
R6020 22K
R6019 220K
R6018 22K
R6017 47K
C6039 1
QR6004 XP4115
RA6003 1K (x4)
RA6001 1K (x4)
R6111 56K
R6112 33K
R6152 120K
R6153 470K
R6151 330K
IC6005 BA6289F (LOADING MOTOR DRIVE)
GND
OUT2
VREF
RIN
OUT1
VM
VCC
FIN
C6002 0.1
C6001 0.1
C6003 0.1
C6030 1
R6009 0
Q6002 2SD2216 (SNSLED DRIVE)
R6022 22K
R6021 12
QR6003 UN9112 (SNS LED DRIVE)
R6046 0
R6141 68K
R6032 1K
R6033 1K
R6068 0
IC6003 μPD6462GS613
HD
VD
NRD/B
G
R
N.R.D BLK
RD
RD BLK
LD
L.D BLK
CLK
CS
DATA
PCL
VDD
XD OUT
XD
EXD
TEST
GND
L6002 100μ
CL6007
R6031 2200
R6029 4700
L6001 33u VLQ0163J330
CL6214
C6015 0.1
C6017 33P
C6018 18P
C6045 2P
C6040 0.1
IC6010 BU4066BCFV
VDD
ADSW
REMO
SP SCK
REM SCK
CLK
CLK
FM CLK
FM CS
IC6007 RH5RE38AA or XC62CP3802PR (3.8V REG)
GND
IN
OUT
C6008 0.1
R6039 2.2
CL6012
R6231 2.2
R6154 100K
RESET
IC6008 PST9133NR
R6182 68K
VDD
REMO
VD ON
VD IN
VD OUT
S DATA
FM DATA
EXT DATA
EXT DATA IN
EXT DATA OUT
EXT DATA
CAMSW
FM CS
VSS
IC6004 BU4066BCFV
QR6012 UN9213 (CAM SW Ⓛ: ON)
QR6018 UN921E (LINE Ⓗ: ON)
R6113 47K
R6036 4700
QR6007 UN9211 (POWER ON Ⓗ: ON)
QR6019 UN9215 (P.ON Ⓗ: ON)
C6051 6V10
CL6006
QR6002 UN9212
C6033 0.22
D6005 MA110
R6080 2200
QR6014 UN921D (EXT DC Ⓗ ON)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
IC6001
MN6755486M5X
IC6001-105
3.5Vp-p (500msec./div.)
IC6001-38 STOP
3.5Vp-p (0.1μsec./div.)
IC6009
BU4094BCFV
(μ-COM XETENSION PORT)
IC6004
BU4066BCFV
IC6002
S3510ANFJ
X6002 (32.768KHz) VSX0601
IC6010
BU4066BCFV
IC6007
RH5RE38AA
or XC62CP3802PR (3.8V REG)
IC6008
PST9133NR
RESET
QR6012 UN9213 (CAM SW Ⓗ:ON)
QR6016 UN921E (LINE Ⓗ ON)
QR6008 UN9211 (S-TAB Ⓛ:OFF)
QR6015 UN9215 (CAP.ON Ⓗ:ON)
QR6009 XP1211 (S-TAB Ⓛ OFF)
QR6007 UN9211 (POWER ON Ⓗ ON)
QR6019 UN9215 (P.ON Ⓗ:ON)
QR6010 XP1213
Q6005 XP4501
QR6002 UN9212
QR6014 UN921D (EXT DC Ⓗ:ON)
QR6006 UN9113 (LICH Ⓛ:ON)
Q6009 2SD2216
Q6004 2SD2216
D6011 MA132WK
D6012 MA132WA
D6010 MA728
D6001 MA728
D6005 MA110
L6001 33μ VLQ0163J330
SYS REG 3.5V
SYS REG 5V
CAPSW
CP.ON Ⓗ
CAMLED
VTRLED
EXTPORTSTB
SENS LED
POWER ON Ⓗ
VITC WRITE Ⓛ (WIDE CTL)
CYL ON Ⓛ
VITC PB Ⓛ
ID Ⓗ
FM CS
LOAD
UNLOAD
C.DOWN
HASW
SP Ⓛ
ADREC Ⓗ
CAM REMO
R.ERASE Ⓗ
V.DREC Ⓗ
FM DREC
DRIVE.CLK
RESET
EXTDC
POWER SW
AD.CS
AD.SW
VITCOFF
CG CS
VITCSEL
SPSEL
CAM SEL
VDON
VDD2
OSCO (MAIN)
OSCI (MAIN)
OSCO (SUB)
OSCI (SUB)
VSS2
S.C.R Ⓗ
A.HSW
CAM SW
CAM RESET
AORP
VORP
AHSW
AHASW
EXT.DATA OUT
EXT.DATA IN
EXIT SCK
S.DATA OUT
S.DATA IN
S.SCK
CAP.R/S/F
CAP. TL
LICH/L
POSCOM
FACT.M
NOTAPE
KTLP
VSS1
S-TAB
POS3
POS2
POS1
VDD
SCAN3
SCAN2
SCAN1
SCAN0
KEY IN3
KEY IN2
KEY IN1
KEY IN0
H/M/N
SENSOR
TH
S-REEL
T-REEL
S-PHOTO
T-PHOTO
CL6001
CL6002
CL6003
CL6004
CL6006
CL6011
CL6012
CL6013
CL6204
CL6212
CL6214
11
12
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14
15
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17
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19
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21
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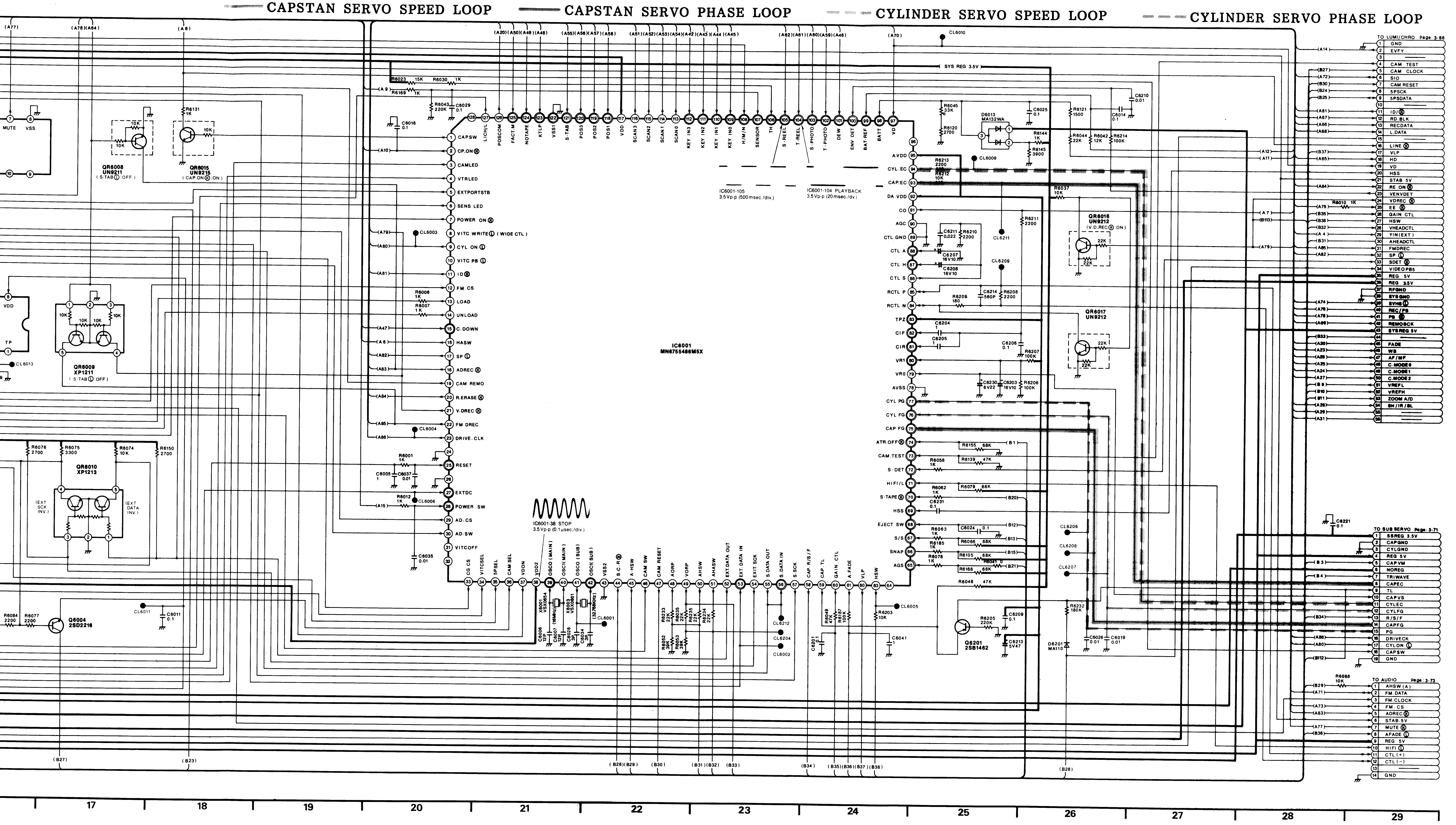
23


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
IC6001
MN6755486M5X
SYS REG 3.5V
QR6008 UN9211 (S-TAB Ⓛ:OFF)
QR6015 UN9215 (CAP.ON Ⓗ:ON)
QR6009 XP1211 (S-TAB Ⓛ:OFF)
QR6010 XP1213
Q6004 2SD2216
QR6016 UN9212 (V.D.REC Ⓗ:ON)
QR6017 UN9212
Q6201 2SB1462
D6013 MA132WA
D6201 MA110
IC6001-105 3.5Vp-p (500msec./div.)
IC6001-104 PLAYBACK 3.5Vp-p (20msec./div.)
IC6001-38 STOP 3.5Vp-p (0.1μsec./div.)
CAPSW
CP.ON Ⓗ
CAMLED
VTRLED
EXTPORTSTB
SENS LED
POWER ON Ⓗ
VITC WRITE Ⓛ (WIDE CTL)
CYL ON Ⓛ
VITC PB Ⓛ
ID Ⓗ
FM CS
LOAD
UNLOAD
C.DOWN
HASW
SP Ⓛ
ADREC Ⓗ
CAM REMO
R.ERASE Ⓗ
V.DREC Ⓗ
FM DREC
DRIVE.CLK
RESET
EXTDC
POWER SW
AD.CS
AD.SW
VITCOFF
A.VDD
CYL.EC
CAP.EC
DA VDD
CO
AGC
CTL GND
CTL A
CTL H
CTL S
RCTL P
RCTL N
TPZ
CIF
CIR
VR1
VR0
AVSS
CYL PG
CYL FG
CAP FG
ATR.OFF Ⓗ
CAM.TEST
S.DET
HIFI/L
S.TAPE Ⓗ
HSS
EJECT SW
S/S
SNAP
AGS
TO LUMI/CHRO Page: 3-66
TO SUB SERVO Page: 3-71
TO AUDIO Page: 3-73
17
18
19
20
21
22
23
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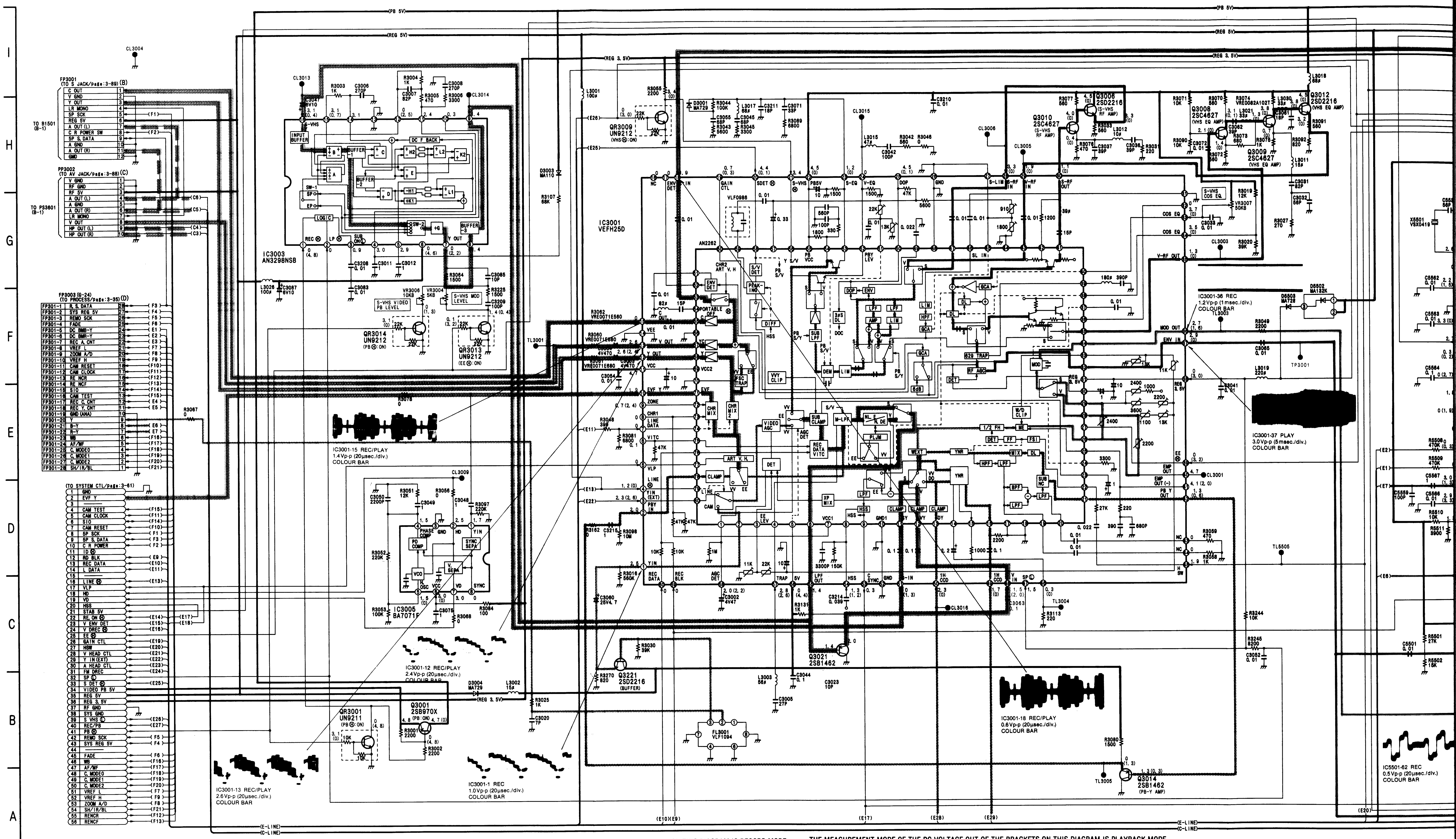
29

3-25. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL PATH IN REC MODE


FP3001 (TO S JACK/Page:3-89) (B)
TO B1501 (B-1)
FP3002 (TO AV JACK/Page:3-88) (C)
TO PS3601 (B-1)
FP3003 (G-24) (TO PROCESS/Page:3-35) (D)
(TO SYSTEM CTL/Page:3-61)
IC3003 AN3298NSB
IC3001 VEFH25D
IC3005 BA7071F
QR3014 UN9212 (PB⊕:ON)
QR3013 UN9212 (EE⊕:ON)
QR3009 UN9212 (VHS⊕:ON)
QR3001 UN9211 (PB⊕:ON)
Q3001 2SB970X
Q3006 2SD2216 (S-VHS RF AMP)
Q3010 2SC4627 (S-VHS RF AMP)
Q3008 2SC4627 (VHS EQ AMP)
Q3009 2SC4627 (VHS EQ AMP)
Q3012 2SD2216 (VHS EQ AMP)
Q3021 2SB1462
Q3221 2SD2216 (BUFFER)
Q3014 2SB1462 (PB-Y AMP)
FL3001 VLF1094
IC3001-15 REC/PLAY 1.4Vp-p (20µsec./div.) COLOUR BAR
IC3001-12 REC/PLAY 2.4Vp-p (20µsec./div.) COLOUR BAR
IC3001-13 REC/PLAY 2.6Vp-p (20µsec./div.) COLOUR BAR
IC3001-1 REC 1.0Vp-p (20µsec./div.) COLOUR BAR
IC3001-18 REC/PLAY 0.6Vp-p (20µsec./div.) COLOUR BAR
IC3001-36 REC 1.2Vp-p (1msec./div.) COLOUR BAR
IC3001-37 PLAY 3.0Vp-p (5msec./div.) COLOUR BAR
IC5501-62 REC 0.5Vp-p (20µsec./div.) COLOUR BAR
(PB 5V)
(REG 5V)
(REG 3.5V)
(E-LINE)
(C-LINE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

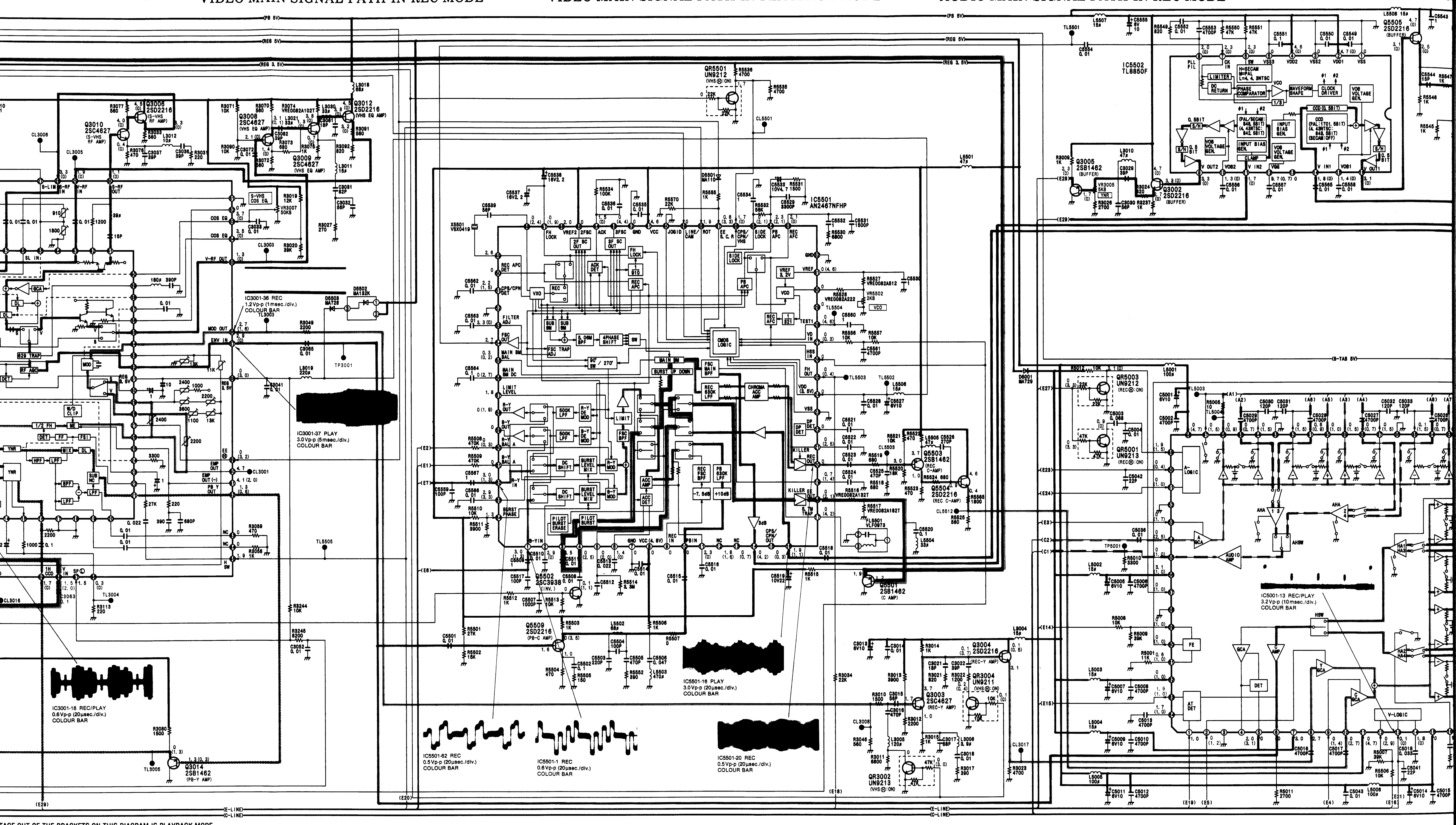
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH AIM THE CAMERA AT THE COLOUR CHART.

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

Back Page:
SYSTEM CTL & SERVO Section

LUMI/CHRO & HA Section

VIDEO MAIN SIGNAL PATH IN REC MODE — VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE — AUDIO MAIN SIGNAL PATH IN REC MODE — AUDIO MAIN SIGNAL PA

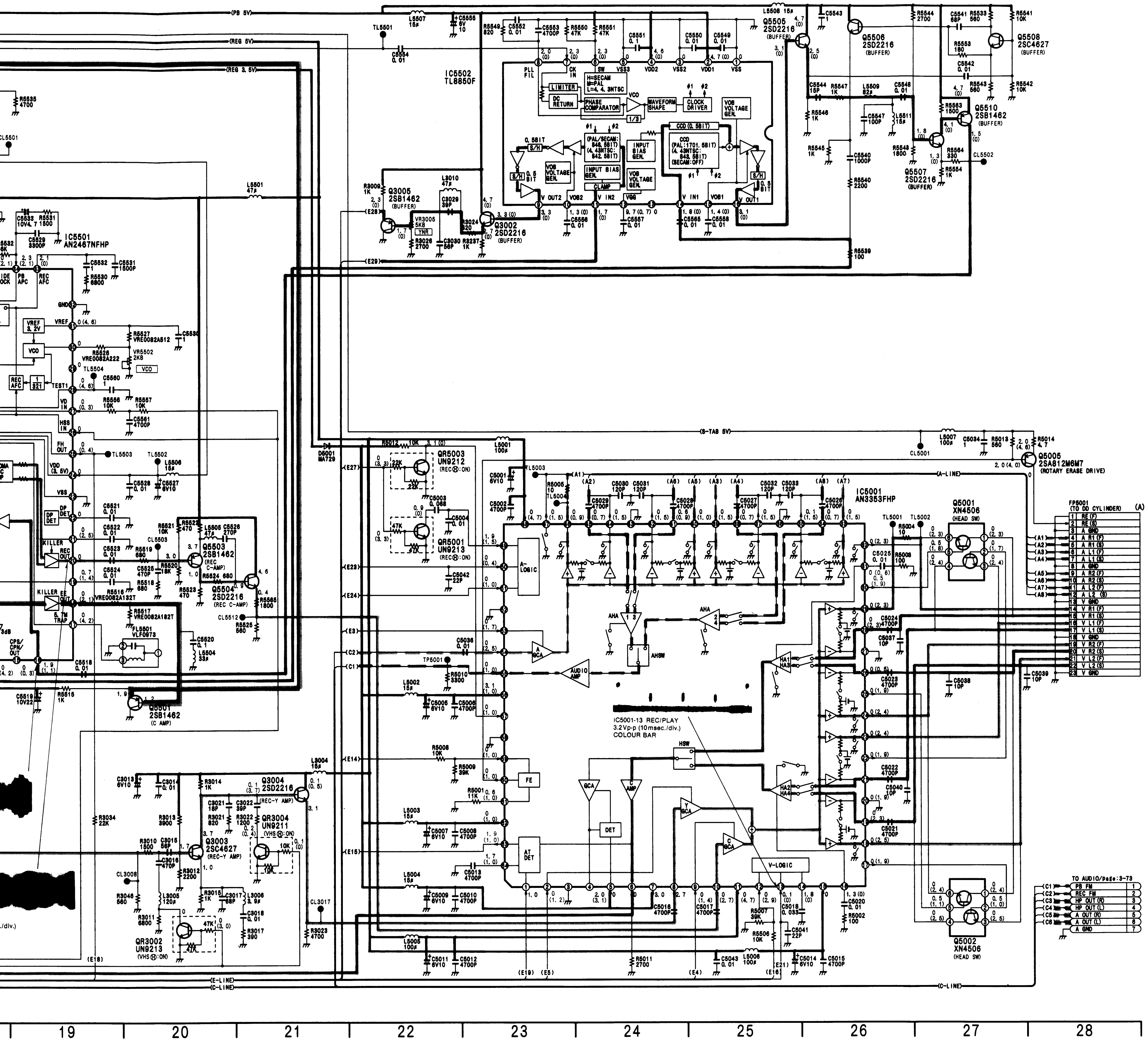


(PB 5V)
(REG 5V)
(REG 3.5V)
Q3010 2SC4627 (S-VHS RF AMP)
Q3006 2SD2216 (S-VHS RF AMP)
Q3008 2SC4627 (VHS EQ AMP)
Q3009 2SC4627 (VHS EQ AMP)
Q3012 2SD2216 (VHS EQ AMP)
S-VHS COS EQ
COS EQ
V-RF OUT
MOD OUT
ENV IN
YNR
1/2 FH
W/D CLIP
IC3001-36 REC 1.2Vp-p (1msec./div.) COLOUR BAR
IC3001-37 PLAY 3.0Vp-p (5msec./div.) COLOUR BAR
IC3001-18 REC/PLAY 0.6Vp-p (20µsec./div.) COLOUR BAR
Q3014 2SB1462 (PB-Y AMP)
QR5501 UN9212 (VHS Ⓢ:ON)
IC5501 AN2467NFHP
X5501 VSX0419
FH LOCK
VREF2
2FSC
ACK
3FSC
GND
VCC
JOGID
LINE/CAM
ROT
SE S.C.R
CPS/CPN/VHS
SIDE LOCK
PB APC
REC AFC
REC APC DET
CPS/CPN DET
FILTER ADJ
FSC OUT
MAIN BAL
MAIN DC
LIMIT LEVEL
R-Y OUT
B-Y OUT
B-Y IN
R-Y IN
BURST PHASE
VXO
CMOS LOGIC
4PHASE SHIFT
FSC TRAP ADJ
MAIN BPF
BURST UP DOWN
REC 630K LPF
CHROMA ACC AMP
500K LPF
DC SHIFT
BURST LEVEL MIX
PILOT BURST ERASE
PILOT BURST
LIMIT
ACC AMP
ACC DET
REC FSC BPF
PB 630K LPF
KILLER DET
KILLER
REC OUT
5.7M TRAP
3dB
CPS/CPN/OUT
Q5502 2SC3938 (INV.)
Q5509 2SD2216 (PB-C AMP)
Q5501 2SB1462 (C AMP)
Q5503 2SB1462 (REC C-AMP)
Q5504 2SD2216 (REC C-AMP)
IC5501-16 PLAY 3.0Vp-p (20µsec./div.) COLOUR BAR
IC5501-62 REC 0.5Vp-p (20µsec./div.) COLOUR BAR
IC5501-1 REC 0.6Vp-p (20µsec./div.) COLOUR BAR
IC5501-20 REC 0.5Vp-p (20µsec./div.) COLOUR BAR
Q3004 2SD2216
QR3004 UN9211 (VHS Ⓢ:ON)
Q3003 2SC4627 (REC-Y AMP)
QR3002 UN9213 (VHS Ⓢ:ON)
IC5502 TL8850F
LIMITER
DC RETURN
PHASE COMPARATOR
VCO
WAVEFORM SHAPE
CLOCK DRIVER
VDB VOLTAGE GEN.
CCD (0.581T)
INPUT BIAS GEN.
CLAMP
S/H
Q3005 2SB1462 (BUFFER)
Q3002 2SD2216 (BUFFER)
Q5505 2SD2216 (BUFFER)
QR5003 UN9212 (REC Ⓢ:ON)
QR5001 UN9213 (REC Ⓢ:ON)
A-LOGIC
AUDIO AMP
AHA
AHSW
HSW
FE
DET
AT DET
V-LOGIC
IC5001-13 REC/PLAY 3.2Vp-p (10msec./div.) COLOUR BAR
(S-TAB 5V)
(E-LINE)
(C-LINE)

TAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

PLAYBACK MODE ---- AUDIO MAIN SIGNAL PATH IN REC MODE --- AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE


IC5502
TL8850F
IC5501
AN2467NFHP
IC5001
AN3353FHP
Q5001
XN4506
(HEAD SW)
Q5002
XN4506
(HEAD SW)
Q5005
2SA812M6M7
(ROTARY ERASE DRIVE)
Q5505
2SD2216
(BUFFER)
Q5506
2SD2216
(BUFFER)
Q5507
2SD2216
(BUFFER)
Q5508
2SC4627
(BUFFER)
Q5510
2SB1462
(BUFFER)
Q3005
2SB1462
(BUFFER)
Q3002
2SD2216
(BUFFER)
Q3004
2SD2216
Q3003
2SC4627
(REC-Y AMP)
QR3002
UN9213
QR3004
UN9211
QR5003
UN9212
QR5001
UN9213
Q5503
2SB1462
(REC C-AMP)
Q5504
2SD2216
(REC C-AMP)
Q5501
2SB1462
(C AMP)
D5001
MA729
FP5001
(TO DD CYLINDER)
IC5001-13 REC/PLAY
3.2Vp-p (10msec./div.)
COLOUR BAR
TO AUDIO/page:3-73
PB FM
REC FM
HP OUT (R)
HP OUT (L)
A OUT (R)
A OUT (L)
A GND
(PB 5V)
(REG 5V)
(REG 3.5V)
(S-TAB 5V)
(A-LINE)
(E-LINE)
(C-LINE)
19
20
21
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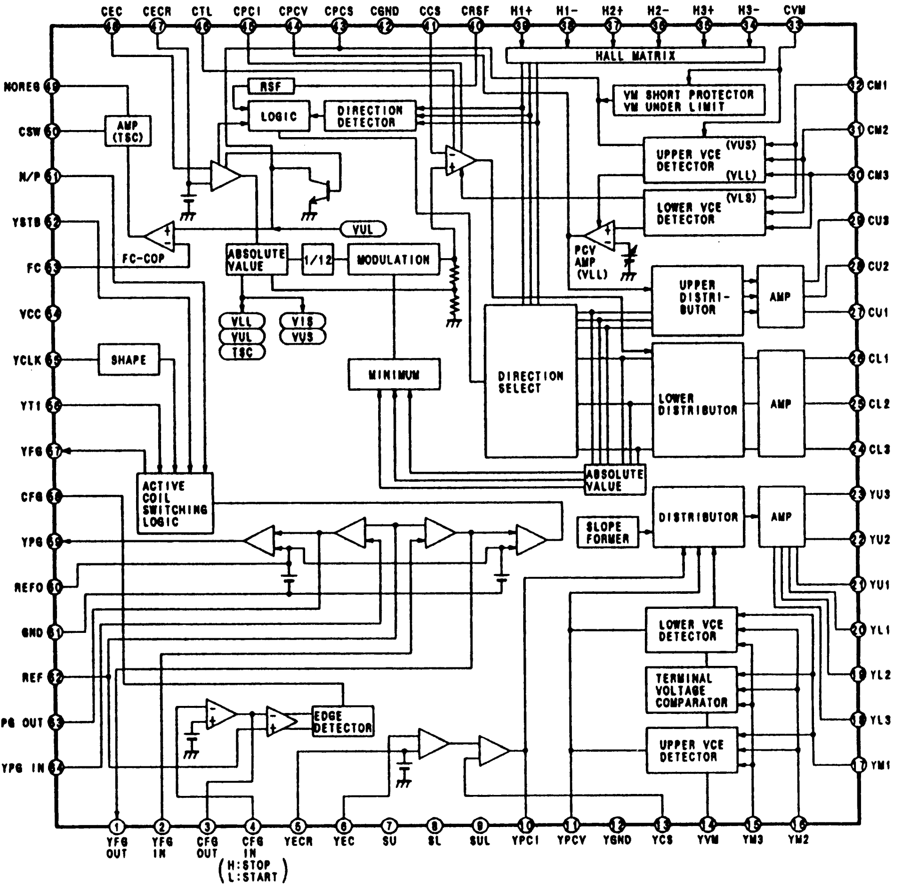
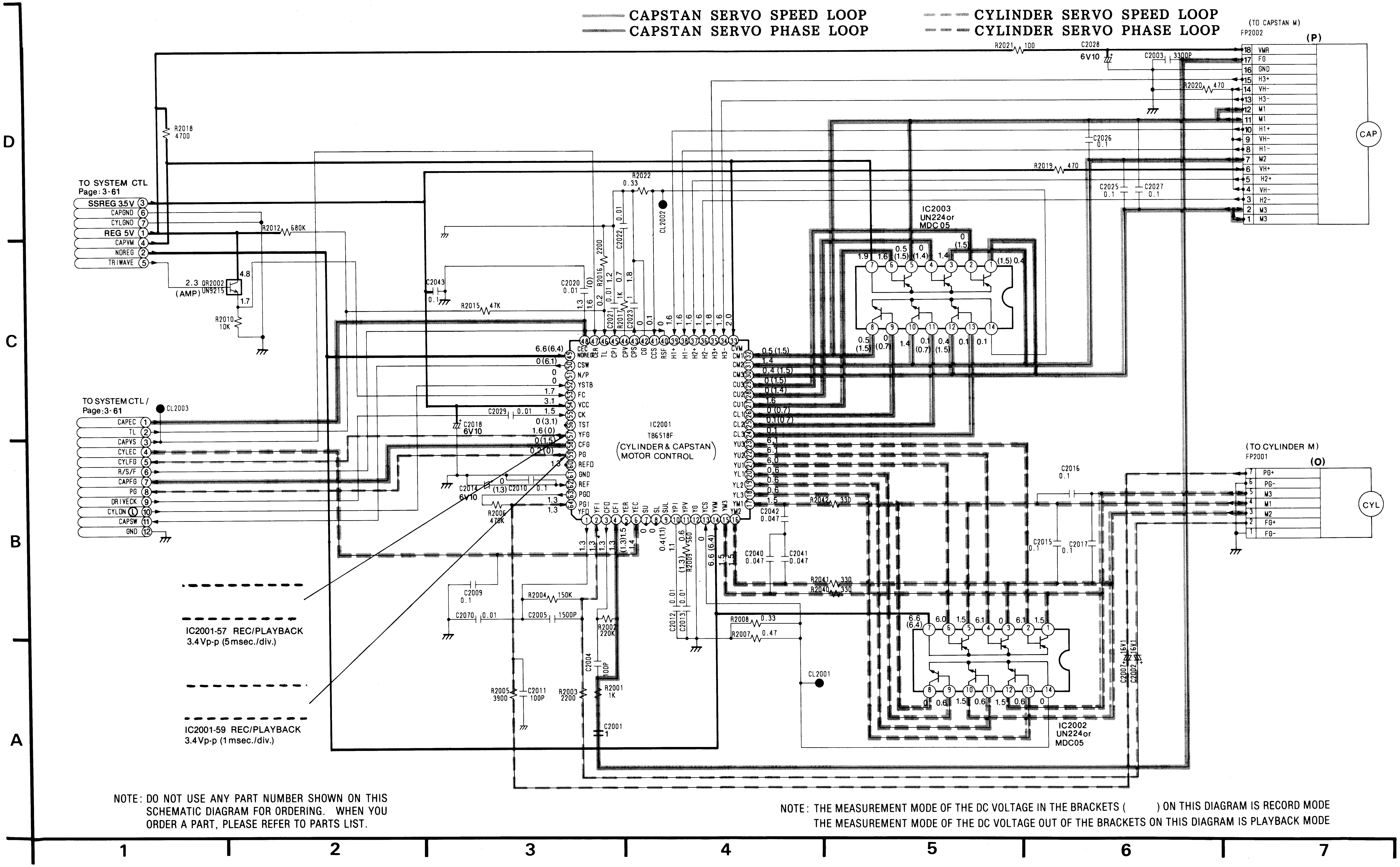
28

IC2001 (TB6518F) (LOCATION: C-4)


CEC
CECR
CTL
CPC1
CPCV
CPCS
CGND
CCS
CRSF
H1+
H1-
H2+
H2-
H3+
H3-
CVM
NOREG
CSW
R/P
YSTB
FC
VCC
YCLK
YT1
YFG
CFG
YPG
REFO
GND
REF
YPG OUT
YPG IN
CM1
CM2
CM3
CU3
CU2
CU1
CL1
CL2
CL3
YU3
YU2
YU1
YL1
YL2
YL3
YM1
YFG OUT
YFG IN
CFG OUT
CFG IN
(H:STOP L:START)
YECR
YEC
SU
SL
SUL
YPCI
YPCV
YGND
YCS
YVM
YM3
YM2
HALL MATRIX
VM SHORT PROTECTOR
VM UNDER LIMIT
UPPER VCE DETECTOR
LOWER VCE DETECTOR
RSF
LOGIC
DIRECTION DETECTOR
AMP (TSC)
FC-COP
ABSOLUTE VALUE
1/12
MODULATION
VUL
PCV AMP (VLL)
UPPER DISTRIBUTOR
AMP
SHAPE
MINIMUM
DIRECTION SELECT
LOWER DISTRIBUTOR
ACTIVE COIL SWITCHING LOGIC
SLOPE FORMER
DISTRIBUTOR
TERMINAL VOLTAGE COMPARATOR
EDGE DETECTOR

3-26. SUB SERVO SCHEMATIC DIAGRAM


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
TO SYSTEM CTL Page: 3-61
SSREG 3.5V ③
CAPGND ⑥
CYLGND ⑦
REG 5V ①
CAPVM ④
NOREG ②
TRIWAVE ⑤
TO SYSTEM CTL / Page: 3-61
CAPEC ①
TL ②
CAPVS ③
CYLEC ④
CYLFG ⑤
R/S/F ⑥
CAPFG ⑦
PG ⑧
DRIVECK ⑨
CYLON Ⓛ ⑩
CAPSW ⑪
GND ⑫
CL2003
QR2002 UN9215 (AMP)
R2018 4700
R2012 580K
R2010 10K
R2015 47K
R2022 0.33
CL2002
IC2001 TB6518F (CYLINDER & CAPSTAN MOTOR CONTROL)
IC2003 UN224or MDC05
IC2002 UN224or MDC05
CL2001
R2021 100
C2028 6V10
C2003 3300P
R2020 470
R2019 470
(TO CAPSTAN M) FP2002 (P)
18 VMR
17 FG
16 GND
15 H3+
14 VH-
13 H3-
12 M1
11 M1
10 H1+
9 VH-
8 H1-
7 M2
6 VH+
5 H2+
4 VH-
3 H2-
2 M3
1 M3
CAP
(TO CYLINDER M) FP2001 (O)
7 PG+
6 PG-
5 M3
4 M1
3 M2
2 FG+
1 FG-
CYL
R2042 330
R2041 330
R2040 330
R2008 0.33
R2007 0.47
R2004 150K
R2005 3900
R2003 2200
R2002 220K
R2001 1K
R2006 470K
R2009 560
IC2001-57 REC/PLAYBACK 3.4Vp-p (5msec./div.)
IC2001-59 REC/PLAYBACK 3.4Vp-p (1msec./div.)
A
B
C
D
1
2
3
4
5
6
7

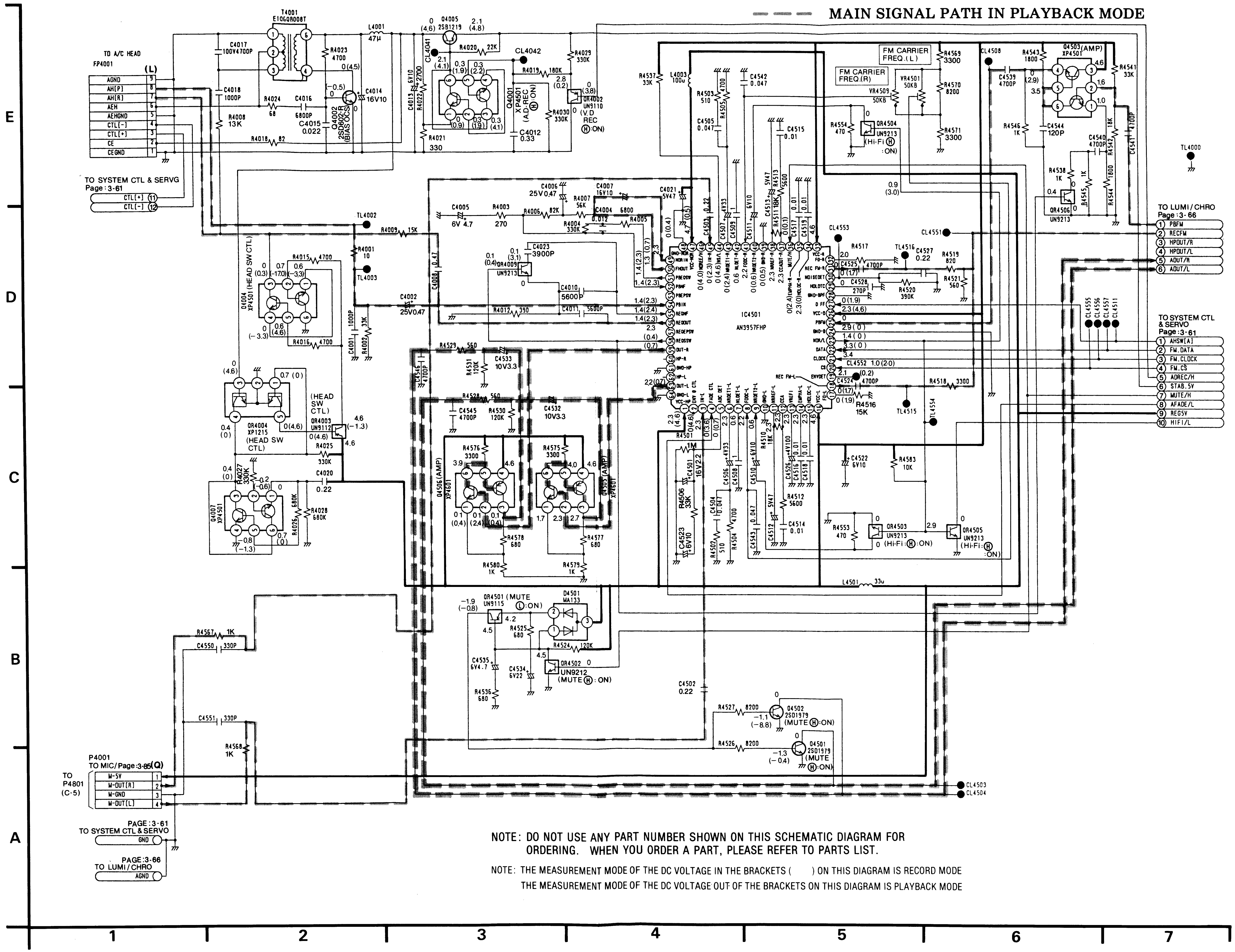
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

3-27. AUDIO SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE



TO A/C HEAD
FP4001
(L)
AGND
AH(P)
AH(R)
AEH
AEHGND
CTL(-)
CTL(+)
CE
CEGND
TO SYSTEM CTL & SERVG
Page : 3-61
CTL(+) 11
CTL(-) 12
T4001
E10G0R008T
C4017 100V4700P
C4018 1000P
R4008 13K
R4024 68
C4016 6800P
C4015 0.022
R4018 82
R4023 4700
Q4002 2SD602/R (BIAS OSC)
C4014 16V10
L4001 47µ
Q4005 2SB1219
C4041
R4020 22K
R4019 180K
CL4042
R4029 330K
QR4002 UN9110 (V.D REC H:ON)
R4030 330K
Q4001 XP4501 (A.D REC H:ON)
C4012 0.33
R4021 330
C4013 6V10
R4022 2700
TL4002
R4009 15K
R4001 10
TL4003
C4002 25V0.47
C4001 1000P
R4002 13K
C4008 0.47
R4015 4700
R4016 4700
Q4004 XP4501 (HEAD SW CTL)
QR4004 XP1215 (HEAD SW CTL)
QR4003 UN9112 (HEAD SW CTL)
R4025 330K
C4020 0.22
R4027 330K
R4026 680K
R4028 680K
Q4007 XP4501
C4005 6V 4.7
R4003 270
C4006 25V0.47
R4006 82K
C4007 16V10
R4007 56K
C4004 0.012
R4004 330K
R4005 6800
C4021 5V47
C4023 3900P
QR4009 UN9213
C4010 5600P
C4011 5600P
R4012 390
R4529 560
R4531 120K
C4533 10V3.3
C4546 4700P
R4528 560
C4545 4700P
R4530 120K
C4532 10V3.3
R4576 3300
R4575 3300
Q4506 (AMP) XP4601
Q4505 (AMP) XP4601
R4578 680
R4577 680
R4580 1K
R4579 1K
QR4501 (MUTE L:ON) UN9115
D4501 MA133
R4525 680
R4524 120K
QR4502 UN9212 (MUTE H:ON)
C4535 6V4.7
C4534 6V22
R4536 680
R4567 1K
C4550 330P
C4551 330P
R4568 1K
P4001
TO MIC/Page:3-85 (Q)
TO P4801 (C-5)
M-5V
M-OUT(R)
M-GND
M-OUT(L)
PAGE : 3-61
TO SYSTEM CTL & SERVO
GND
PAGE:3-66
TO LUMI/CHRO
AGND
IC4501
AN3957FHP
R4537 33K
L4003 100µ
R4503 510
R4505 4700
C4542 0.047
C4505 0.047
C4515 0.01
FM CARRIER FREQ.(L)
FM CARRIER FREQ.(R)
VR4509 50KB
VR4501 50KB
R4569 3300
R4570 8200
R4571 3300
R4554 470
QR4504 UN9213 (Hi-Fi H:ON)
CL4508
R4543 1800
Q4503 (AMP) XP4501
R4541 33K
C4539 4700P
R4546 1K
C4544 120P
C4540 4700P
R4542 18K
C4541 4700P
R4538 1K
R4545 1K
R4544 1800
QR4506 UN9213
TL4000
CL4553
CL4551
R4517
TL4516
C4525 4700P
C4527 0.22
R4519 820
C4528 270P
R4520 390K
R4521 560
CL4552
C4524 4700P
R4516 15K
TL4515
R4518 3300
CL4554
R4501 1M
C4501 16V2.2
R4506 33K
C4523 6V10
C4504 10.047
R4502 510
R4504 4700
C4522 6V10
R4583 10K
R4512 5600
C4514 0.01
R4553 470
QR4503 UN9213 (Hi-Fi H:ON)
QR4505 UN9213 (Hi-Fi H:ON)
L4501 33µ
C4502 0.22
R4527 8200
Q4502 2SD1979 (MUTE H:ON)
R4526 8200
Q4501 2SD1979 (MUTE H:ON)
CL4503
CL4504
CL4555
CL4556
CL4557
CL4511
TO LUMI/CHRO
Page : 3-66
1 PBFM
2 RECFM
3 HPOUT/R
4 HPOUT/L
5 AOUT/R
6 AOUT/L
TO SYSTEM CTL & SERVO
Page : 3-61
1 AHSW(A)
2 FM.DATA
3 FM.CLOCK
4 FM.CS
5 AOREC/H
6 STAB.5V
7 MUTE/H
8 AFADE/L
9 REG5V
10 HIFI/L
E
D
C
B
A
1
2
3
4
5
6
7

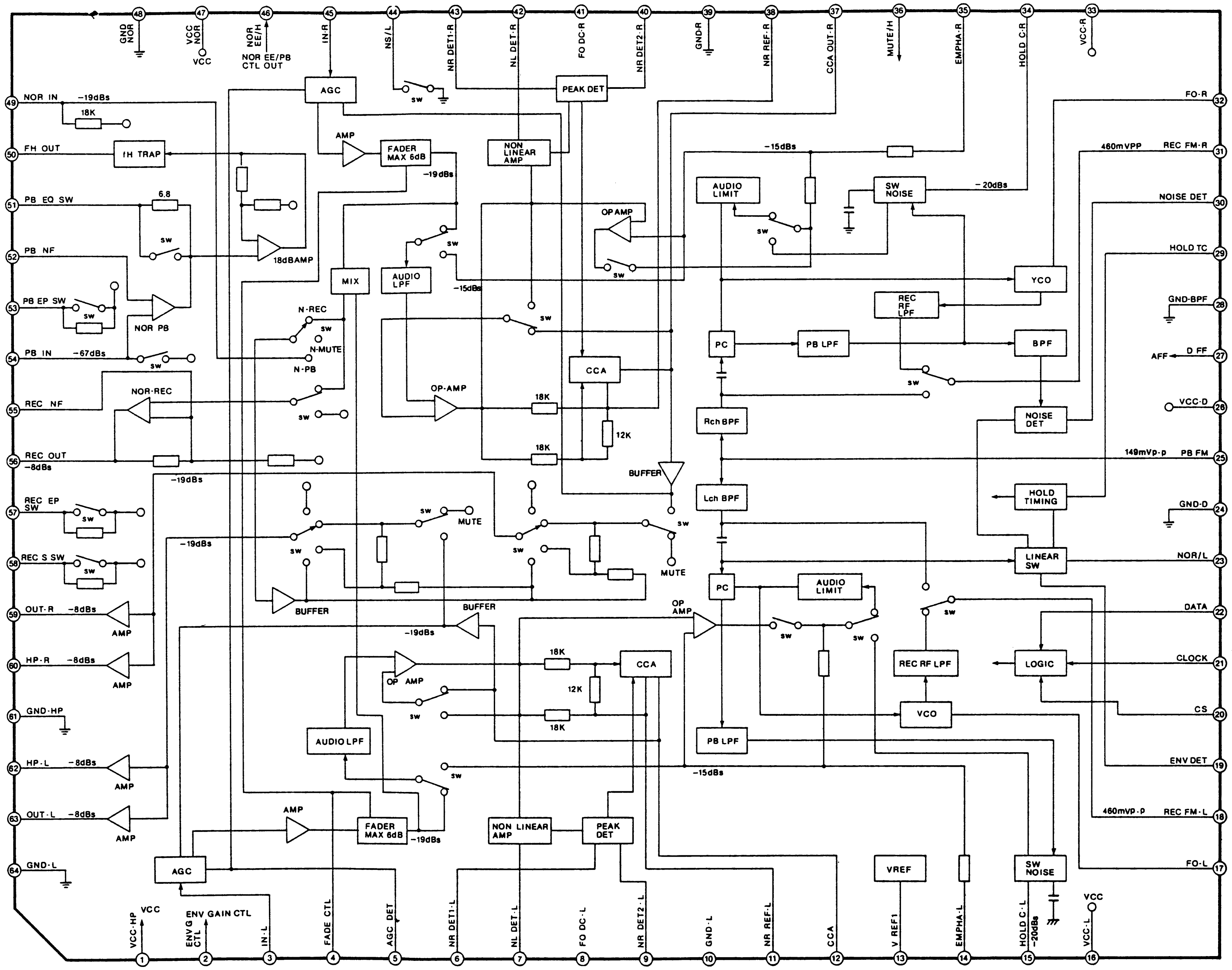
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

Back Page:
SUB SERVO Section

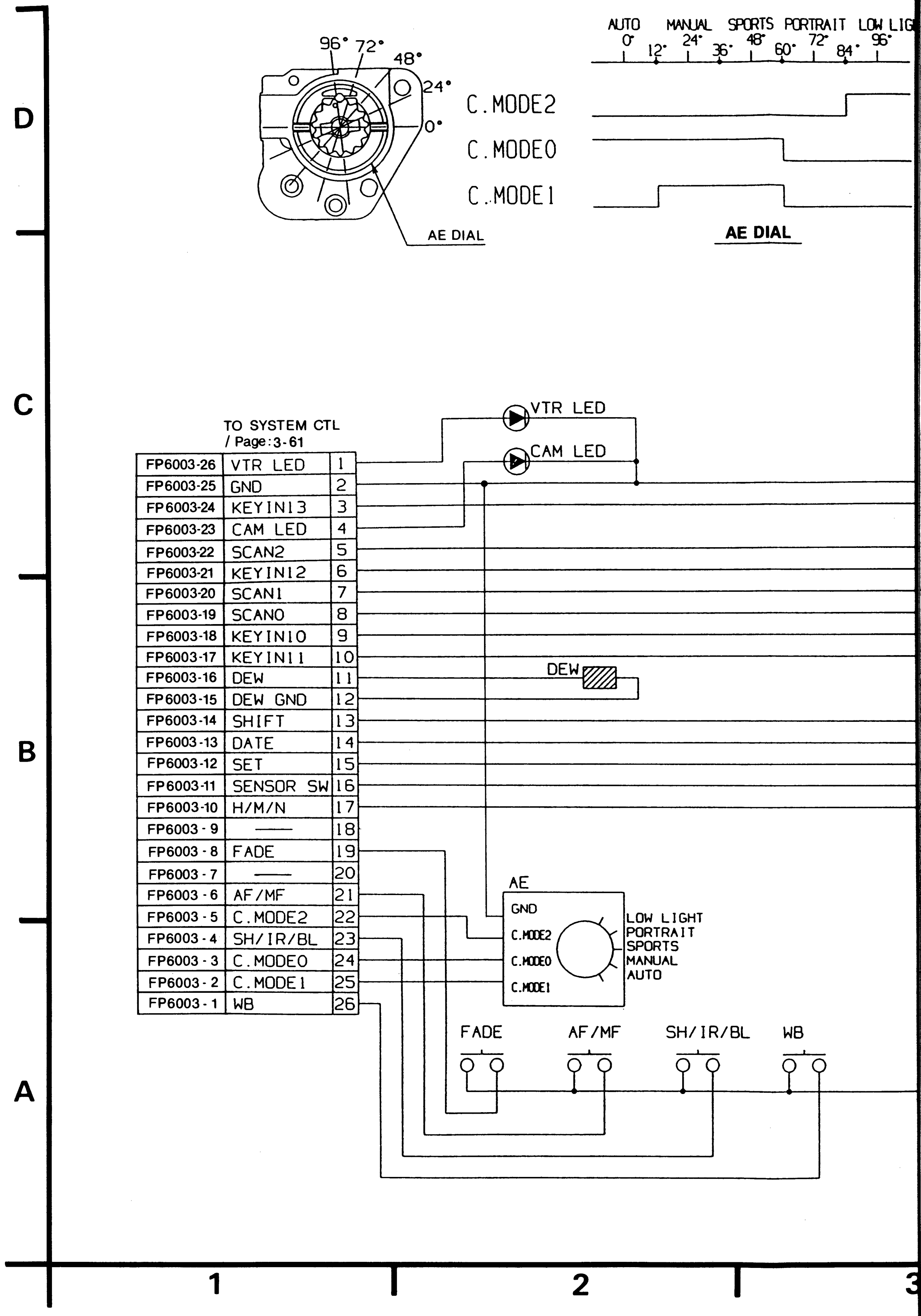
IC BLOCK

IC4501 (AN3957FAP)
(LOCATION: D-4)



48 GND NOR
47 VCC NOR
46 NOR EE/H
NOR EE/PB CTL OUT
45 IN-R
44 NS/L
43 NR DET1-R
42 NL DET-R
41 FO DC-R
40 NR DET2-R
39 GND-R
38 NR REF-R
37 CCA OUT-R
36 MUTE/H
35 EMPHA-R
34 HOLD C-R
33 VCC-R
49 NOR IN −19dBs
50 FH OUT
51 PB EQ SW
52 PB NF
53 PB EP SW
54 PB IN −67dBs
55 REC NF
56 REC OUT −8dBs
57 REC EP SW
58 REC S SW
59 OUT-R −8dBs
60 HP-R −8dBs
61 GND-HP
62 HP-L −8dBs
63 OUT-L −8dBs
64 GND-L
32 FO-R
31 REC FM-R 460mVPP
30 NOISE DET
29 HOLD TC
28 GND-BPF
27 D FF AFF
26 VCC-D
25 PB FM 149mVp-p
24 GND-D
23 NOR/L
22 DATA
21 CLOCK
20 CS
19 ENV DET
18 REC FM-L 460mVp-p
17 FO-L
1 VCC-HP VCC
2 ENV G CTL ENV GAIN CTL
3 IN-L
4 FADE CTL
5 AGC DET
6 NR DET1-L
7 NL DET-L
8 FO DC-L
9 NR DET2-L
10 GND-L
11 NR REF-L
12 CCA
13 V REF1
14 EMPHA-L
15 HOLD C-L −20dBs
16 VCC-L VCC
AGC
AMP
FADER MAX 6dB
NON LINEAR AMP
PEAK DET
1H TRAP
18dBAMP
NOR PB
NOR-REC
N-REC
N-MUTE
N-PB
MIX
AUDIO LPF
OP AMP
CCA
BUFFER
MUTE
AUDIO LIMIT
SW NOISE
YCO
REC RF LPF
PC
PB LPF
BPF
NOISE DET
Rch BPF
Lch BPF
HOLD TIMING
LINEAR SW
LOGIC
VCO
VREF
sw
18K
12K
6.8
−15dBs
−19dBs
−20dBs

3-28. CAMERA/VTR OPERATION SCHEMATIC DIAGRAM

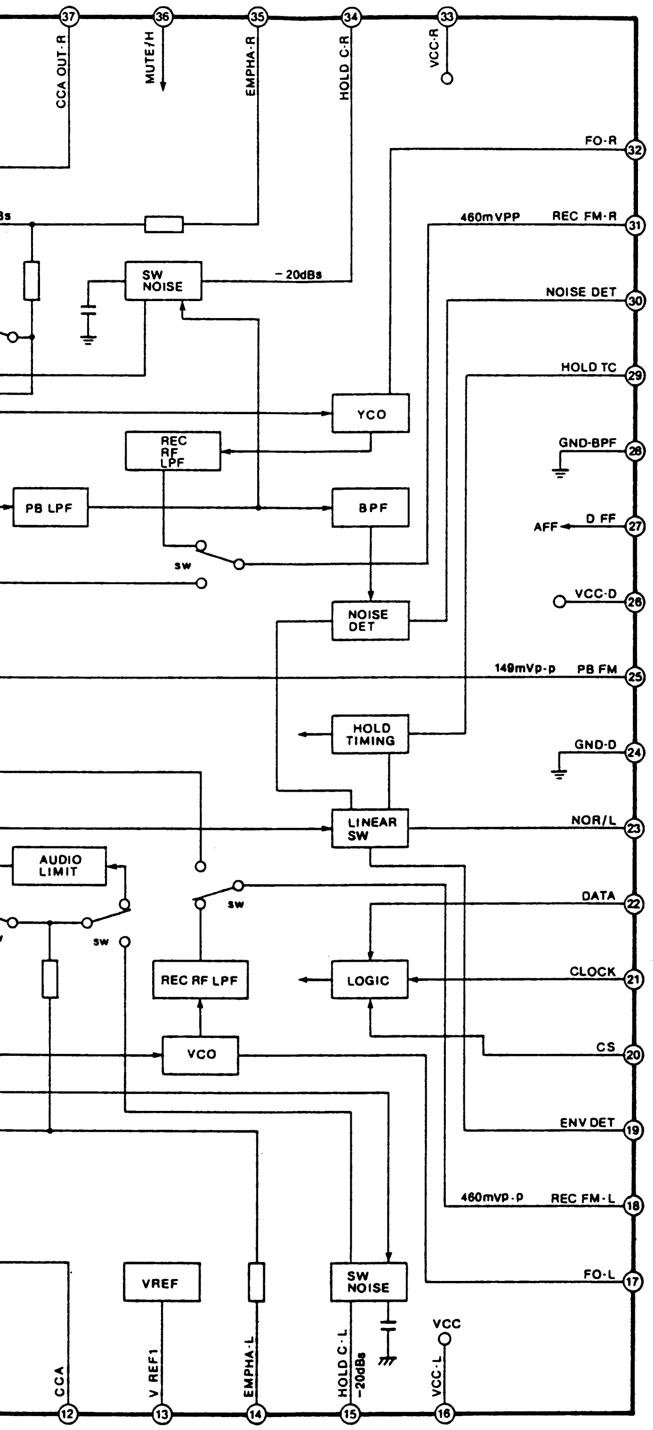


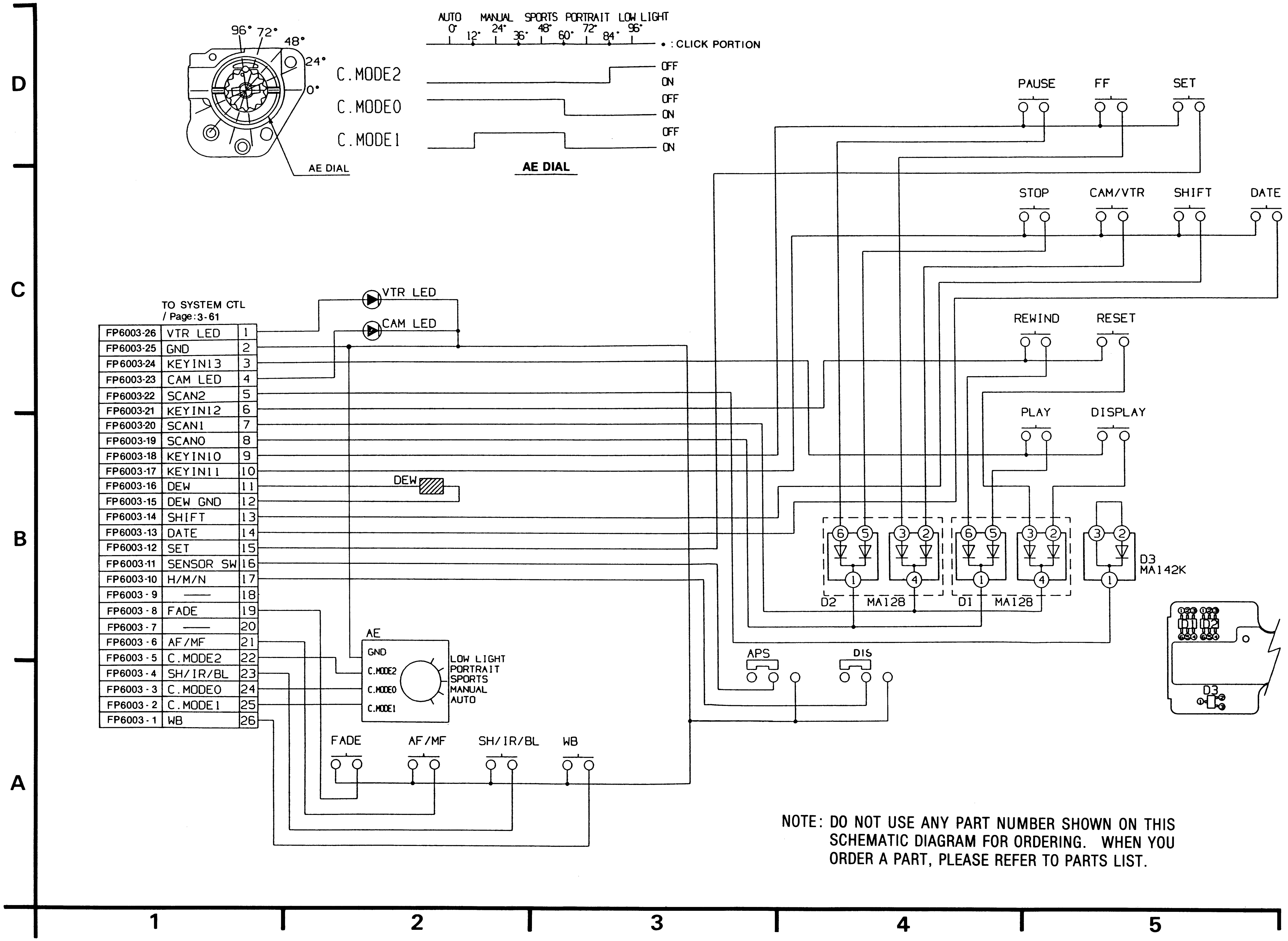
D
C
B
A
1
2
3
AUTO
MANUAL
SPORTS
PORTRAIT
LOW LIG
0°
12°
24°
36°
48°
60°
72°
84°
96°
C.MODE2
C.MODE0
C.MODE1
AE DIAL
VTR LED
CAM LED
DEW
AE
GND
LOW LIGHT
PORTRAIT
SPORTS
MANUAL
AUTO
FADE
AF/MF
SH/IR/BL
WB

TO SYSTEM CTL
/ Page: 3-61

FP6003-26	VTR LED	1
FP6003-25	GND	2
FP6003-24	KEYIN13	3
FP6003-23	CAM LED	4
FP6003-22	SCAN2	5
FP6003-21	KEYIN12	6
FP6003-20	SCAN1	7
FP6003-19	SCAN0	8
FP6003-18	KEYIN10	9
FP6003-17	KEYIN11	10
FP6003-16	DEW	11
FP6003-15	DEW GND	12
FP6003-14	SHIFT	13
FP6003-13	DATE	14
FP6003-12	SET	15
FP6003-11	SENSOR SW	16
FP6003-10	H/M/N	17
FP6003-9	——	18
FP6003-8	FADE	19
FP6003-7	——	20
FP6003-6	AF/MF	21
FP6003-5	C.MODE2	22
FP6003-4	SH/IR/BL	23
FP6003-3	C.MODE0	24
FP6003-2	C.MODE1	25
FP6003-1	WB	26

3-28. CAMERA/VTR OPERATION SCHEMATIC DIAGRAM


CCA OUT-R
MUTE/H
EMPHA-R
HOLD C-R
VCC-R
FO-R
460mVPP
REC FM-R
SW NOISE
-20dBs
NOISE DET
HOLD TC
YCO
REC RF LPF
GND-BPF
PB LPF
BPF
D FF
AFF
SW
VCC-D
NOISE DET
149mVp-p
PB FM
HOLD TIMING
GND-D
LINEAR SW
NOR/L
AUDIO LIMIT
DATA
SW
REC RF LPF
LOGIC
CLOCK
VCO
CS
ENV DET
460mVp-p
REC FM-L
VREF
SW NOISE
FO-L
VCC
CCA
V REF1
EMPHA-L
HOLD C-L
-20dBs
VCC-L
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
12
13
14
15
16


D
C
B
A
1
2
3
4
5
96° 72°
48°
24°
0°
AE DIAL
AUTO
MANUAL
SPORTS
PORTRAIT
LOW LIGHT
0°
12°
24°
36°
48°
60°
72°
84°
96°
• : CLICK PORTION
C.MODE2
C.MODE0
C.MODE1
OFF
ON
AE DIAL
PAUSE
FF
SET
STOP
CAM/VTR
SHIFT
DATE
VTR LED
CAM LED
REWIND
RESET
PLAY
DISPLAY
DEW
6
5
3
2
1
4
D2
MA128
D1
MA128
D3
MA142K
AE
GND
C.MODE2
C.MODE0
C.MODE1
LOW LIGHT
PORTRAIT
SPORTS
MANUAL
AUTO
APS
DIS
FADE
AF/MF
SH/IR/BL
WB
D1
D2
D3

TO SYSTEM CTL
/ Page:3-61

FP6003-26	VTR LED	1
FP6003-25	GND	2
FP6003-24	KEYIN13	3
FP6003-23	CAM LED	4
FP6003-22	SCAN2	5
FP6003-21	KEYIN12	6
FP6003-20	SCAN1	7
FP6003-19	SCAN0	8
FP6003-18	KEYIN10	9
FP6003-17	KEYIN11	10
FP6003-16	DEW	11
FP6003-15	DEW GND	12
FP6003-14	SHIFT	13
FP6003-13	DATE	14
FP6003-12	SET	15
FP6003-11	SENSOR SW	16
FP6003-10	H/M/N	17
FP6003-9	——	18
FP6003-8	FADE	19
FP6003-7	——	20
FP6003-6	AF/MF	21
FP6003-5	C.MODE2	22
FP6003-4	SH/IR/BL	23
FP6003-3	C.MODE0	24
FP6003-2	C.MODE1	25
FP6003-1	WB	26

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
VTR MAIN C.B.A. Section

VTR MAIN C.B.A.

Integrated Circuit

IC2001	D-2
IC2002	E-15
IC2003	D-15
IC3001	E-5
IC3003	F-12
IC3005	F-11
IC4501	C-14
IC5001	F-14
IC5501	F-10
IC5502	D-9
IC6001	B-10
IC6002	B-6
IC6003	C-7
IC6004	B-6
IC6005	A-9
IC6006	A-10
IC6007	B-9
IC6008	C-9
IC6009	B-11
IC6010	B-6
IC6401	F-17
IC6402	F-17

Transistor

Q3001	D-10
Q3002	E-10
Q3003	E-12
Q3004	E-12
Q3005	D-3
Q3006	F-4
Q3008	F-4
Q3009	F-4
Q3010	F-4
Q3012	F-12
Q3014	E-11
Q3021	D-11
Q3221	D-6
Q4001	D-13
Q4002	D-14
Q4004	C-14
Q4005	D-14
Q4007	D-13
Q4501	A-2
Q4502	A-2
Q4503	D-13
Q4505	B-13
Q4506	A-14
Q5001	F-13
Q5002	F-14
Q5005	F-13
Q5501	E-6
Q5502	F-9
Q5503	E-7
Q5504	E-6
Q5505	E-9
Q5506	D-9
Q5507	E-9
Q5508	D-9
Q5509	F-9
Q5510	E-9
Q6002	A-9
Q6004	C-10
Q6005	B-11
Q6009	C-11
Q6201	C-10

Transistor & Resistor

QR2002	D-15
QR3001	F-13
QR3002	D-13
QR3004	E-13
QR3009	F-10
QR3013	F-13
QR3014	F-13
QR4002	D-14
QR4003	D-13
QR4004	D-14
QR4009	C-13
QR4501	E-3
QR4502	D-3
QR4503	C-3
QR4504	C-15
QR4505	C-3
QR4506	D-13
QR5001	E-13
QR5003	E-3
QR5501	F-6
QR6001	C-8
QR6002	C-9
QR6003	A-9
QR6004	B-5
QR6006	B-8
QR6007	B-5
QR6008	B-5
QR6009	B-5
QR6010	B-11
QR6012	B-5
QR6014	B-5
QR6015	B-11
QR6016	B-12
QR6017	B-11
QR6018	C-6
QR6019	A-10

Diode

D3001	F-11
D3003	E-12
D3004	D-11
D4501	E-3
D5001	F-3
D5501	E-11
D5502	E-10
D5503	E-11
D6001	B-9
D6005	B-8
D6010	B-11
D6011	A-11
D6012	A-11
D6013	A-9
D6014	D-10
D6015	C-10
D6016	B-7
D6017	D-9
D6201	C-6

Transformer

T4001	D-2

Test Point

CL2001	E-2
CL2002	C-1
CL2003	D-2
CL3001	E-4
CL3003	E-4
CL3004	A-8
CL3005	F-4
CL3006	F-4
CL3008	E-4
CL3009	E-6
CL3010	F-5
CL3013	D-5
CL3014	D-5
CL3015	F-5
CL3016	D-4
CL3017	E-4
CL3020	A-2
CL3501	C-3
CL3502	C-5
CL3503	C-5
CL4041	D-3
CL4042	D-3
CL4503	A-2
CL4504	B-3
CL4508	D-3
CL4511	B-2
CL4551	B-3
CL4552	B-3
CL4553	B-2
CL4555	B-2
CL4556	B-2
CL4557	B-3
CL5001	F-3
CL5002	E-2
CL5003	E-2
CL5501	F-8
CL5502	E-7
CL5503	E-6
CL5504	E-7
CL5512	E-3
CL6001	C-6
CL6002	B-6
CL6003	D-6
CL6004	D-6
CL6005	C-6
CL6006	C-5
CL6007	C-6
CL6008	C-6
CL6009	B-7
CL6011	B-5
CL6012	B-7
CL6204	C-6
CL6206	B-7
CL6207	B-6
CL6208	B-7
CL6209	B-7
CL6211	D-6
CL6212	C-6
CL6214	D-6
CL6301	B-4
CL6302	B-4
CL6303	B-3
CL6304	B-4
CL6305	B-4
CL6306	B-4
CL6307	B-3
CL6308	B-3
CL6401	F-17
CL6402	F-17
CL6403	F-17
CL6404	F-17
CL6405	F-16
TL3001	E-7
TL3003	E-4
TL3004	D-4
TL3005	F-6
TL3502	C-4
TL3504	C-4
TL3507	D-4
TL4000	B-1
TL4002	C-2
TL4003	C-2
TL4515	B-3
TL4516	B-2
TL4554	C-3
TL5001	F-2
TL5002	F-2
TL5003	F-3
TL5004	F-4
TL5501	F-6
TL5502	E-6
TL5503	E-7
TL5504	E-6
TL5505	D-4
TL6001	B-8
TL6002	B-7
TL6003	B-7
TL6004	A-6
TL6005	B-8
TP3001	A-15
TP5001	A-15

Adjustment

VR3004	E-4
VR3005	D-4
VR3006	E-4
VR3007	F-4
VR4501	C-3
VR4509	D-3
VR5502	F-7
VR5503	E-7

Connector

B6004	D-7
FP2001	E-15
FP2002	C-1
FP3001	B-7
FP3003	D-7
FP4001	C-2
FP5001	F-2
FP6001	A-6
FP6002	A-6
FP6003	F-7
P4001	A-15
P6004	F-5
P6006	B-2
PJ6001	C-8
PP3002	A-3

Crystal

X5501	F-6
X6001	C-6
X6002	B-5
X6003	C-6

Filter

FL3001	E-6
FL5501	E-7

Coil

L3001	E-11
L3002	D-11
L3003	E-11
L3004	E-12
L3005	D-13
L3006	E-12
L3007	E-12
L3010	E-3
L3011	F-4
L3012	F-4
L3015	F-5
L3017	F-12
L3018	F-12
L3019	E-12
L3021	F-4
L3026	E-12
L3030	F-12
L3043	F-5
L4001	D-14
L4003	D-2
L4501	E-3
L5001	E-13
L5002	E-3
L5003	E-3
L5004	E-2
L5005	F-2
L5006	F-2
L5007	F-3
L5501	E-6
L5502	F-10
L5503	F-9
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L6002	C-9

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Resistor

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R2017	D-2
R2018	D-1
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R2020	D-14
R2021	D-1
R2022	D-15
R2040	E-2
R2041	E-2
R2042	E-1
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R3002	E-11
R3003	F-12
R3004	F-12
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R3014	E-12
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R5509	F-9
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R5513	E-9
R5514	F-9
R5515	E-6
R5516	E-7

ADDRESS INFORMATION

VTR MAIN C.B.A.

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E-7

Connector

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FP2002	C-1
FP3001	B-7
FP3003	D-7
FP4001	C-2
FP5001	F-2
FP6001	A-6
FP6002	A-6
FP6003	F-7
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P6004	F-5
P6006	B-2
PJ6001	C-8
PP3002	A-3

Crystal

X5501	F-6
X6001	C-6
X6002	B-5
X6003	C-6

Filter

FL3001	E-6
FL5501	E-7

Coil

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Capacitor

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C6211	B-9
C6213	B-7
C6214	B-9
C6221	B-8
C6230	C-7
C6231	C-9
C6401	F-17
C6402	F-17

Resistor

R2001	E-14
R2002	E-14
R2003	D-14
R2004	E-14
R2005	E-15
R2006	D-14
R2007	E-15
R2008	E-15
R2009	E-2
R2010	D-2
R2012	E-12
R2015	D-14
R2016	D-14
R2017	D-2
R2018	D-1
R2019	C-15
R2020	D-14
R2021	D-1
R2022	D-15
R2040	E-2
R2041	E-2
R2042	E-1
R3001	D-10
R3002	E-11
R3003	F-12
R3004	F-12
R3005	F-12
R3006	F-12
R3009	D-4
R3010	D-12
R3011	D-13
R3012	D-12
R3013	E-12
R3014	E-12
R3015	E-13
R3016	D-6
R3017	D-13
R3019	E-4
R3020	E-4
R3021	E-12
R3022	E-12
R3023	E-13
R3024	D-4
R3025	E-6
R3026	E-3
R3027	F-5
R3030	D-6
R3031	F-4
R3033	F-4
R3034	E-11
R3042	F-5
R3043	F-12
R3044	F-12
R3045	F-12
R3046	D-12
R3048	E-11
R3049	E-4
R3051	F-11
R3052	F-11
R3053	F-11
R3055	F-11
R3056	F-11
R3058	D-4
R3059	E-4
R3060	D-7
R3061	D-6
R3062	E-6
R3064	E-12
R3067	E-11
R3070	F-4
R3071	F-4
R3072	F-3
R3073	F-4
R3074	F-4
R3075	F-4
R3076	F-4
R3077	F-4
R3078	F-11
R3080	E-11
R3081	E-11
R3084	F-11
R3089	F-12
R3090	F-3
R3091	F-4
R3092	F-4
R3097	F-11
R3098	D-11
R3107	E-12
R3113	D-4
R3131	D-11
R3162	E-11
R3225	E-13
R3237	D-4
R3244	E-12
R3245	E-12
R3246	F-5
R3270	D-6
R4001	C-14
R4002	C-14
R4003	C-2
R4004	C-2
R4005	C-2
R4006	C-2
R4007	C-2
R4008	C-2
R4009	C-14
R4012	C-14
R4015	C-14
R4016	C-14
R4018	C-2
R4019	D-14
R4020	D-14
R4021	D-13
R4022	D-14
R4023	D-14
R4024	C-14
R4025	C-13
R4026	D-13
R4027	D-13
R4028	D-14
R4029	D-14
R4030	D-14
R4501	B-13
R4502	C-3
R4503	B-2
R4504	C-3
R4505	B-2
R4506	C-13
R4510	C-2
R4511	B-14
R4512	C-2
R4513	C-15
R4516	B-13
R4517	B-14
R4518	B-3
R4519	B-2
R4520	B-14
R4521	B-3
R4524	D-3
R4525	D-3
R4526	B-2
R4527	B-2
R4528	A-13
R4529	A-14
R4530	A-13
R4531	B-14
R4536	D-3
R4537	C-15
R4538	D-13
R4541	E-13
R4542	D-14
R4543	D-13
R4544	D-13
R4545	D-13
R4546	D-13
R4553	C-3
R4554	C-15
R4567	A-14
R4568	B-15
R4569	D-3
R4570	D-3
R4571	D-3
R4575	B-13
R4576	A-14
R4577	B-14
R4578	A-14
R4579	B-14
R4580	B-14
R4583	B-2
R5001	D-14
R5002	F-14
R5003	F-13
R5004	F-13
R5005	E-3
R5006	E-2
R5007	E-2
R5008	D-14
R5009	D-14
R5010	D-13
R5011	D-14
R5012	E-3
R5013	F-13
R5014	F-13
R5016	E-14
R5501	F-10
R5502	F-10
R5503	F-10
R5504	F-10
R5505	F-10
R5506	F-9
R5507	F-9
R5508	F-9
R5509	F-9
R5510	F-9
R5511	F-10
R5512	E-9
R5513	E-9
R5514	F-9
R5515	E-6
R5516	E-7
R5518	E-7
R5519	E-6
R5520	E-7
R5521	E-6
R5522	E-7
R5523	E-7
R5524	E-7
R5525	E-10
R5526	F-6
R5527	F-6
R5529	E-10
R5530	E-10
R5531	F-7
R5532	F-10
R5533	E-9
R5534	F-10
R5535	F-6
R5536	F-7
R5539	E-7
R5540	E-9
R5541	E-9
R5542	E-9
R5543	D-9
R5544	E-9
R5545	D-9
R5546	E-9
R5547	E-9
R5548	E-9
R5549	D-10
R5550	D-10
R5551	D-10
R5552	F-9
R5553	D-9
R5554	E-9
R5555	F-10
R5556	E-10
R5557	E-10
R5563	E-9
R5564	E-9
R5565	E-6
R5599	F-10
R6001	B-11
R6002	A-9
R6003	C-6
R6004	C-6
R6006	B-11
R6007	B-11
R6008	B-7
R6009	A-9
R6010	D-6
R6011	B-11
R6012	C-11
R6013	A-10
R6014	A-10
R6015	A-10
R6016	A-10
R6017	A-11
R6018	A-11
R6019	A-11
R6020	A-11
R6021	A-9
R6022	A-9
R6023	A-9
R6024	A-10
R6025	A-10
R6026	A-10
R6027	B-5
R6028	B-5
R6029	B-6
R6030	B-7
R6031	B-6
R6032	C-10
R6033	B-6
R6034	A-11
R6035	C-10
R6036	A-11
R6037	B-11
R6038	A-9
R6039	B-6
R6041	C-9
R6042	A-9
R6043	B-6
R6044	B-9
R6045	A-9
R6046	C-10
R6047	B-6
R6048	C-10
R6049	C-10
R6051	D-7
R6052	C-10
R6053	C-10
R6055	C-10
R6058	C-7
R6060	B-8
R6061	B-11
R6062	C-6
R6063	C-9
R6064	A-10
R6066	C-9
R6068	C-9
R6070	A-11
R6071	A-11
R6072	C-11
R6073	A-11
R6074	A-11
R6075	A-11
R6076	A-11
R6077	C-11
R6078	C-9
R6079	C-9
R6080	B-11
R6081	B-5
R6084	C-11
R6086	C-6
R6087	C-6
R6088	C-5
R6091	F-5
R6093	E-8
R6101	E-14
R6104	D-9
R6105	B-8
R6111	B-9
R6112	A-9
R6113	B-5
R6120	A-9
R6121	A-9
R6130	A-11
R6131	B-11
R6134	B-11
R6135	A-11
R6138	C-5
R6139	C-7
R6141	B-6
R6144	A-9
R6145	A-9
R6150	B-11
R6151	A-9
R6152	A-9
R6153	A-9
R6154	C-5
R6155	C-7
R6168	C-9
R6169	B-9
R6182	C-9
R6183	C-9
R6185	B-9
R6187	C-9
R6203	C-6
R6205	C-10
R6206	B-7
R6207	B-6
R6208	B-9
R6209	B-9
R6210	B-9
R6211	B-9
R6212	B-9
R6213	B-9
R6214	A-7
R6231	B-7
R6232	C-6
R6233	C-10
R6234	C-10
R6235	C-10
R6401	F-17
R6402	F-17
R6403	F-17
R6404	F-17
R6405	F-17
R6406	F-16

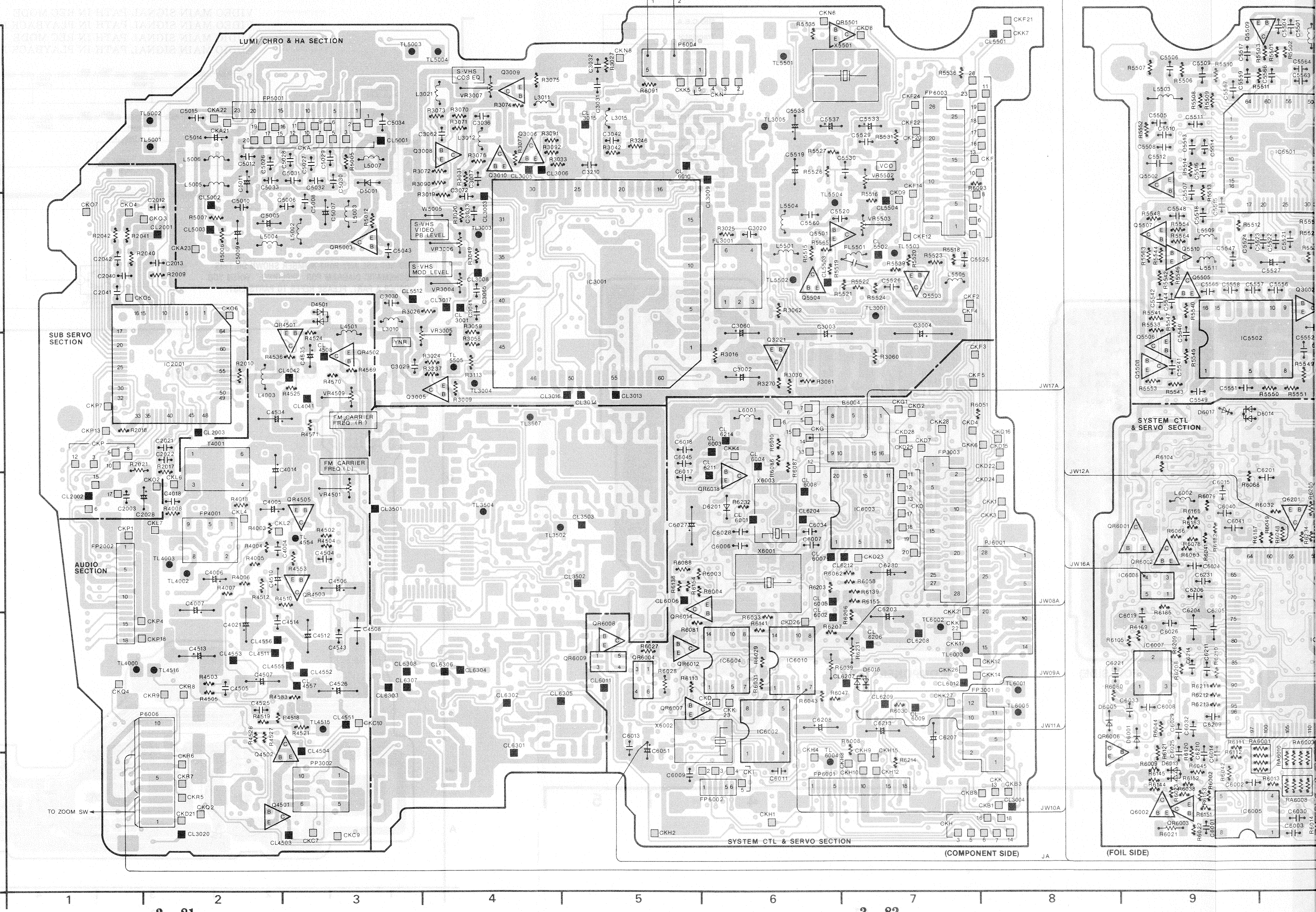
Resistor Array

RA6001	B-10
RA6003	B-10
RA6004	B-10
RA6005	B-10
RA6006	A-10
RA6007	A-10
RA6008	A-10
RA6010	A-10

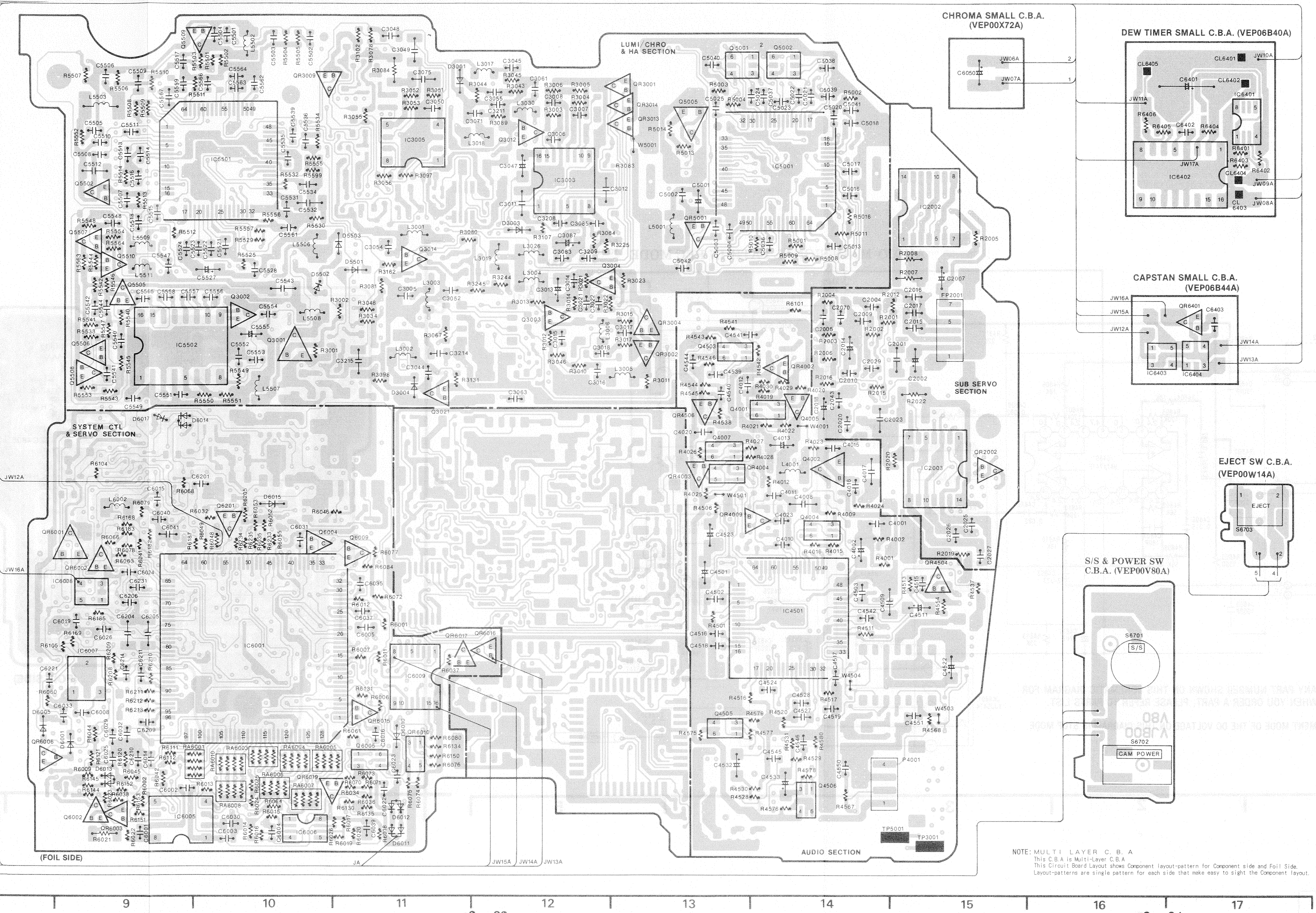
Wire

W4001	D-14
W4501	C-13
W4503	B-15
W4504	B-14
W5001	F-13
W5005	E-4

3-29. VTR MAIN [SYSTEM CONTROL & SERVO, SUB SERVO, LUMINANCE/CHROMINANCE & HEAD AMP, AUDIO Section] C.B.A. (VEP03B80A)

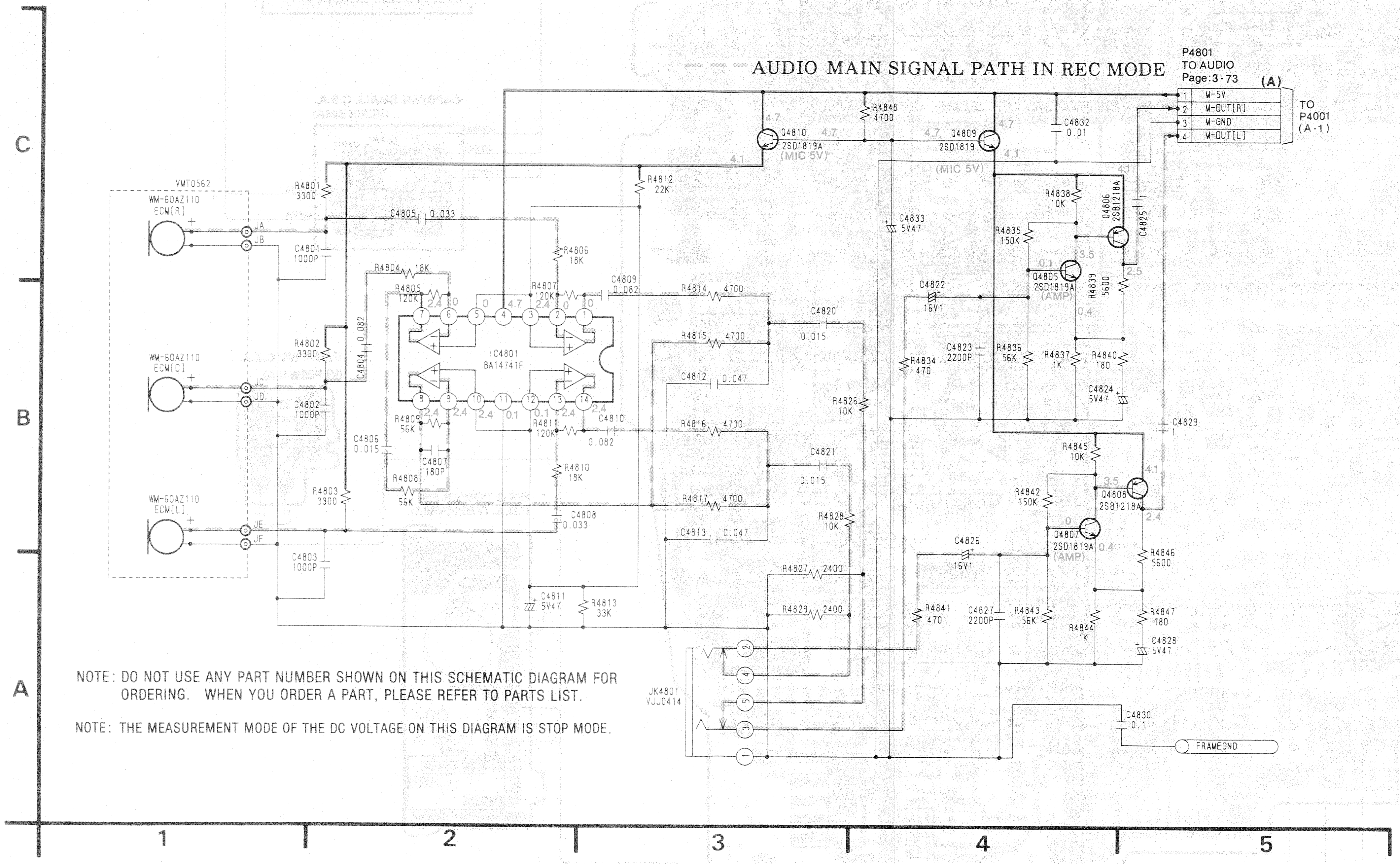

LUMI/CHRO & HA SECTION
SUB SERVO SECTION
AUDIO SECTION
SYSTEM CTL & SERVO SECTION
SYSTEM CTL & SERVO SECTION
S-VHS COS EQ
S-VHS VIDEO PB LEVEL
S-VHS MOD LEVEL
FM CARRIER FREQ (R)
FM CARRIER FREQ (L)
YNR
VCO
TO ZOOM SW
(COMPONENT SIDE)
(FOIL SIDE)
IC3001
IC2001
IC5502
IC6003
IC6004
IC6010
IC6002
IC5501
IC6005
X6001
X6002
X6003
X5501
JW17A
JW12A
JW16A
JW08A
JW09A
JW11A
JW10A
JA
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9

ction] C.B.A. (VEP03B80A)


LUMI/CHRO
& HA SECTION
SYSTEM CTL
& SERVO SECTION
SUB SERVO
SECTION
AUDIO SECTION
(FOIL SIDE)
CHROMA SMALL C.B.A.
(VEP00X72A)
DEW TIMER SMALL C.B.A. (VEP06B40A)
CAPSTAN SMALL C.B.A.
(VEP06B44A)
EJECT SW C.B.A.
(VEP00W14A)
S/S & POWER SW
C.B.A. (VEP00V80A)
IC5501
IC5502
IC3005
IC3003
IC5001
IC2002
IC2003
IC6001
IC6009
IC6005
IC6006
IC6007
IC6008
IC4501
IC6402
IC6401
IC6403
IC6404
S6701
S/S
S6702
CAM POWER
EJECT
S6703
TP5001
TP3001
P4001
FP2001
JW06A
JW07A
JW10A
JW11A
JW17A
JW09A
JW08A
JW16A
JW15A
JW12A
JW14A
JW13A
JA
9
10
11
12
13
14
15
16
17

NOTE: MULTI LAYER C. B. A
This C.B.A is Multi-Layer C.B.A
This Circuit Board Layout shows Component layout-pattern for Component side and Foil Side.
Layout-patterns are single pattern for each side that make easy to sight the Component layout.

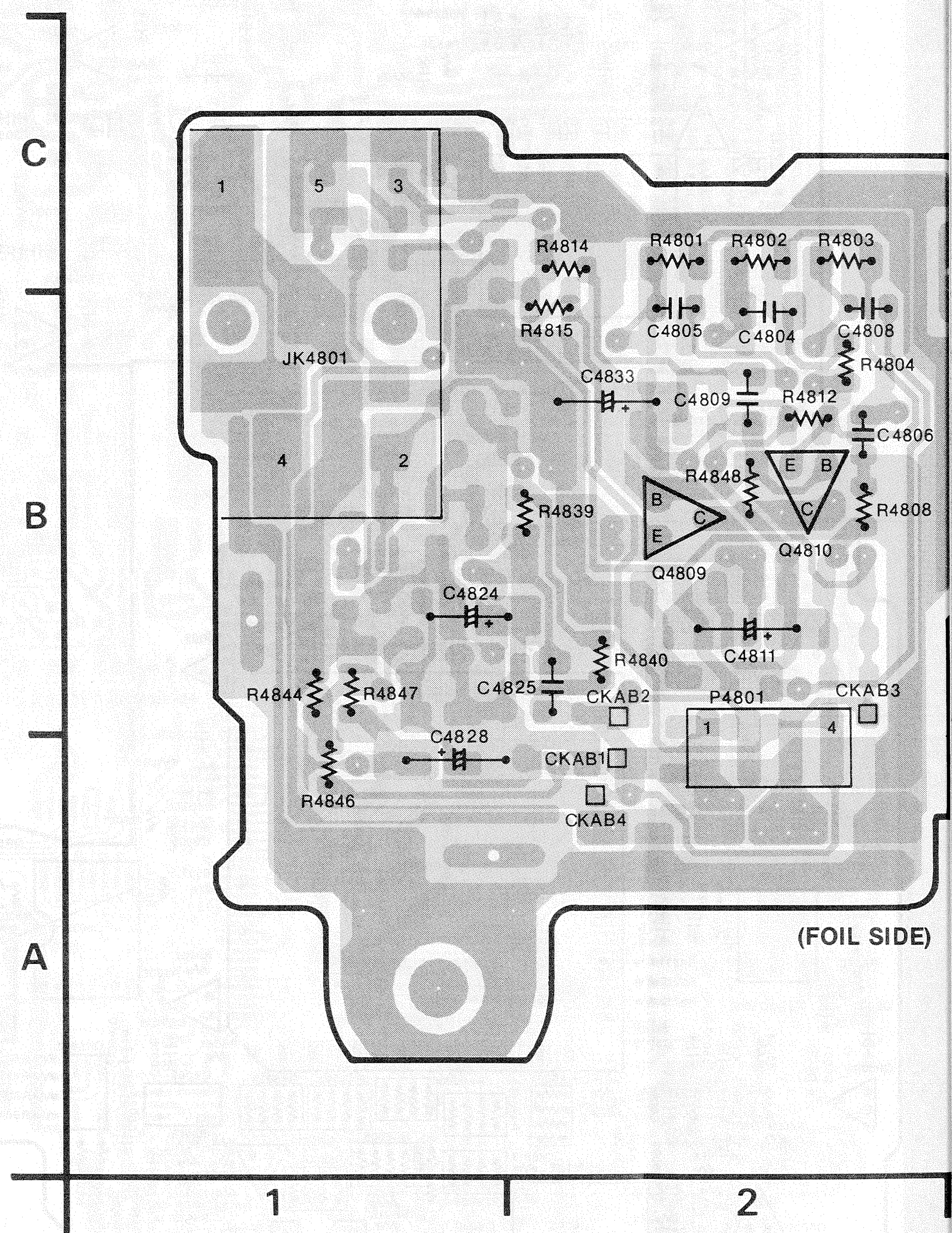
3-30. MIC SCHEMATIC DIAGRAM


AUDIO MAIN SIGNAL PATH IN REC MODE
P4801
TO AUDIO
Page:3-73
(A)
1 M-5V
2 M-OUT[R]
3 M-GND
4 M-OUT[L]
TO
P4001
(A-1)
VMT0562
WM-60AZ110
ECM[R]
WM-60AZ110
ECM[C]
WM-60AZ110
ECM[L]
JA
JB
JC
JD
JE
JF
R4801
3300
R4802
3300
R4803
3300
C4801
1000P
C4802
1000P
C4803
1000P
C4804
0.082
C4805
0.033
R4804
18K
R4805
120K
R4806
18K
R4807
120K
C4809
0.082
IC4801
BA14741F
R4809
56K
C4806
0.015
C4807
180P
R4808
56K
R4811
120K
C4810
0.082
R4810
18K
C4808
0.033
C4811
5V47
R4813
33K
R4812
22K
Q4810
2SD1819A
(MIC 5V)
R4848
4700
Q4809
2SD1819
(MIC 5V)
C4832
0.01
C4833
5V47
R4814
4700
R4815
4700
C4812
0.047
C4820
0.015
R4826
10K
R4816
4700
R4817
4700
C4813
0.047
C4821
0.015
R4828
10K
R4827
2400
R4829
2400
C4822
16V1
R4834
470
C4823
2200P
R4835
150K
R4836
56K
R4838
10K
Q4805
2SD1819A
(AMP)
Q4806
2SB1218A
C4825
1
R4839
5600
R4837
1K
R4840
180
C4824
5V47
C4829
1
R4845
10K
R4842
150K
Q4808
2SB1218A
Q4807
2SD1819A
(AMP)
C4826
16V1
R4841
470
C4827
2200P
R4843
56K
R4844
1K
R4846
5600
R4847
180
C4828
5V47
C4830
0.1
FRAMEGND
JK4801
VJJ0414
4.7
4.1
3.5
2.5
2.4
0.4
0.1
0
C
B
A
1
2
3
4
5

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-31. MIC C.B.A. (VEK7455)

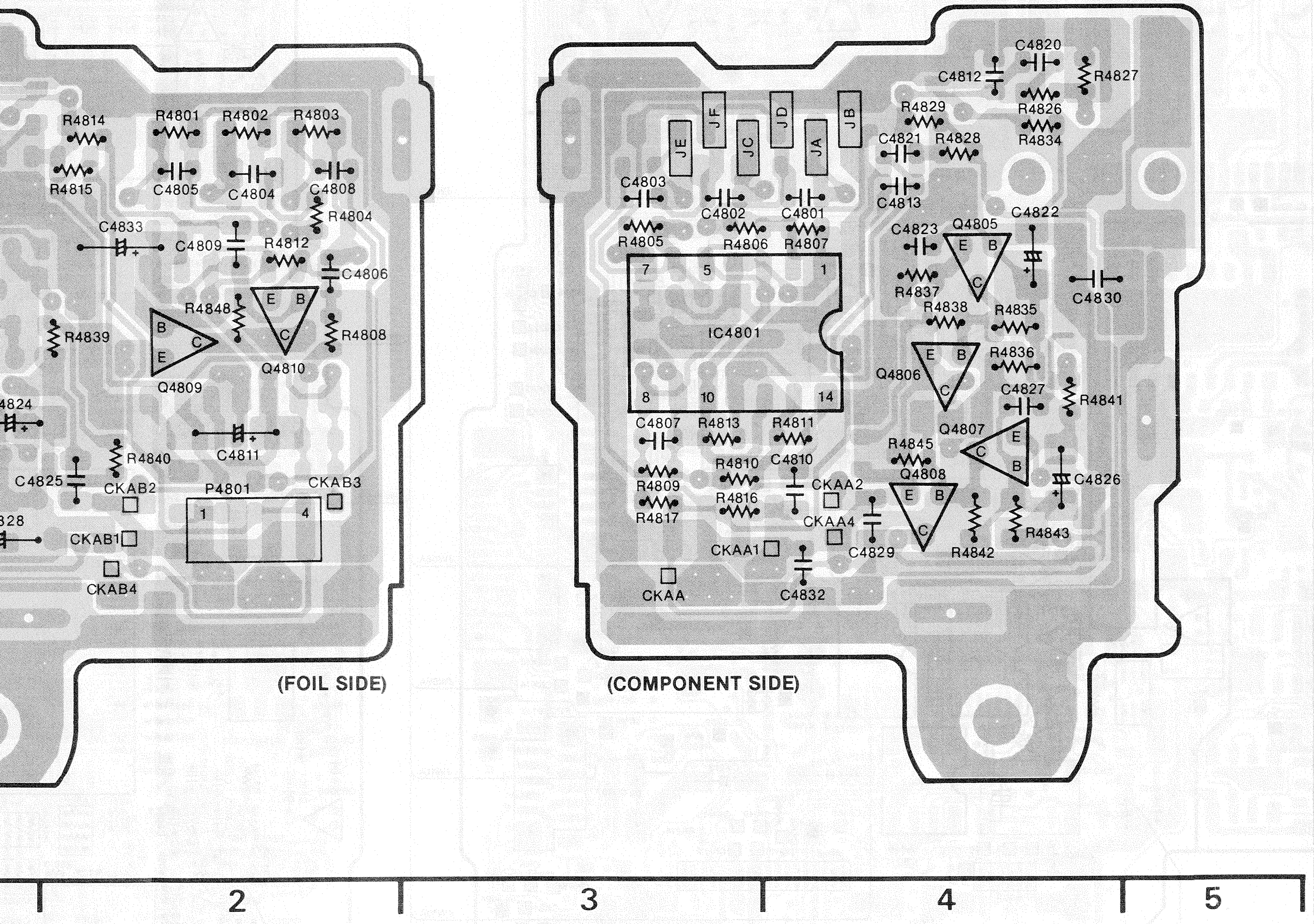

JK4801
1
5
3
4
2
R4814
R4815
R4801
R4802
R4803
C4805
C4804
C4808
R4804
C4833
C4809
R4812
C4806
R4848
R4839
R4808
Q4809
Q4810
E
B
C
C4824
C4811
R4840
R4844
R4847
C4825
CKAB2
P4801
CKAB3
C4828
CKAB1
R4846
CKAB4
C
B
A
1
2

(FOIL SIDE)

Back Page:
VTR MAIN C.B.A. Section

MIC C.B.A.	
Transistor	
Q4805	B-4
Q4806	B-4
Q4807	B-4
Q4808	B-4
Q4809	B-2
Q4810	B-2
Integrated Circuit	
IC4801	B-3
Connector	
JK4801	B-1
P4801	B-2

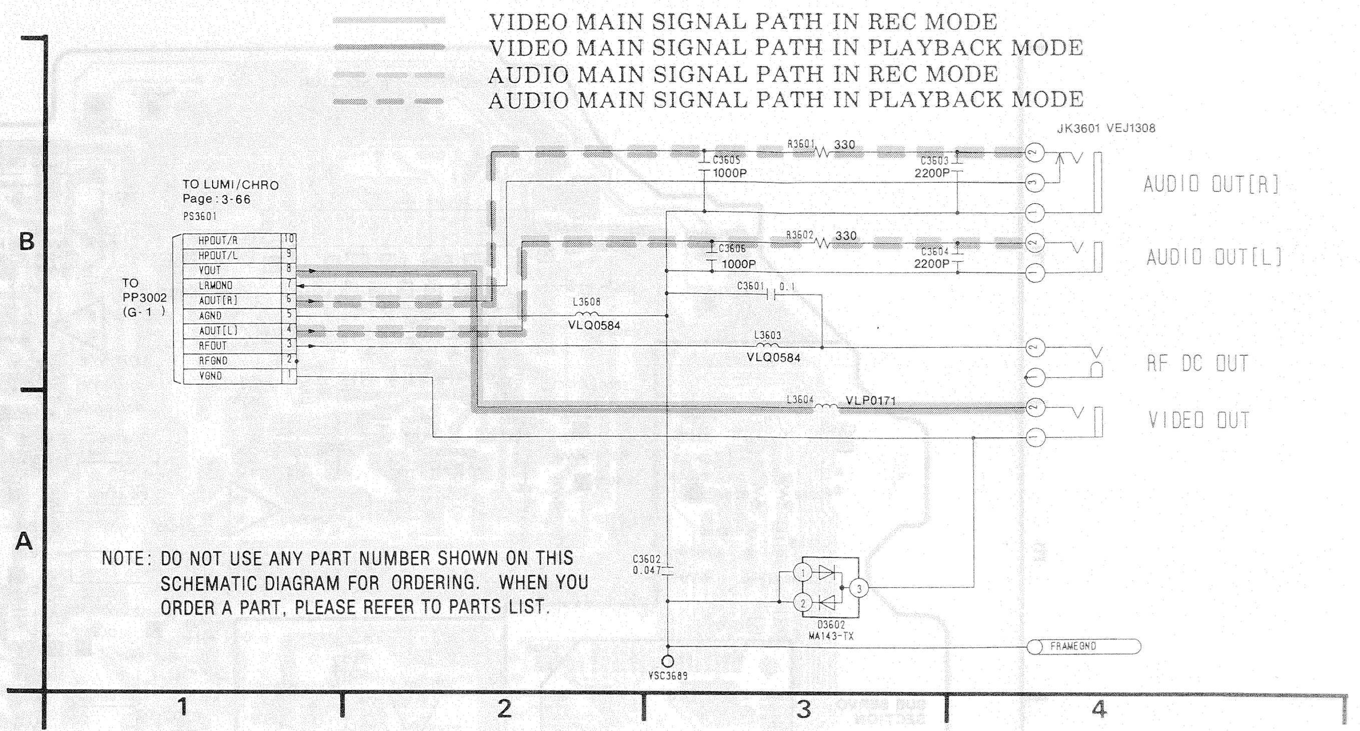
ADDRESS INFORMATION


R4814
R4801
R4802
R4803
R4815
C4805
C4804
C4808
R4804
C4833
C4809
R4812
C4806
R4848
Q4810
R4839
R4808
Q4809
C4811
R4840
C4825
CKAB2
P4801
CKAB3
CKAB1
CKAB4
JE
JF
JC
JD
JA
JB
C4803
R4805
C4802
C4801
R4806
R4807
C4820
C4812
R4827
R4829
R4826
R4834
C4821
R4828
C4813
C4822
C4823
Q4805
R4837
R4838
C4830
R4835
IC4801
Q4806
R4836
C4827
R4841
Q4807
C4807
R4813
R4811
R4845
R4810
C4810
R4809
R4816
R4817
CKAA2
Q4808
C4826
CKAA4
C4829
R4842
R4843
CKAA1
CKAA
C4832
2
3
4
5

(FOIL SIDE)

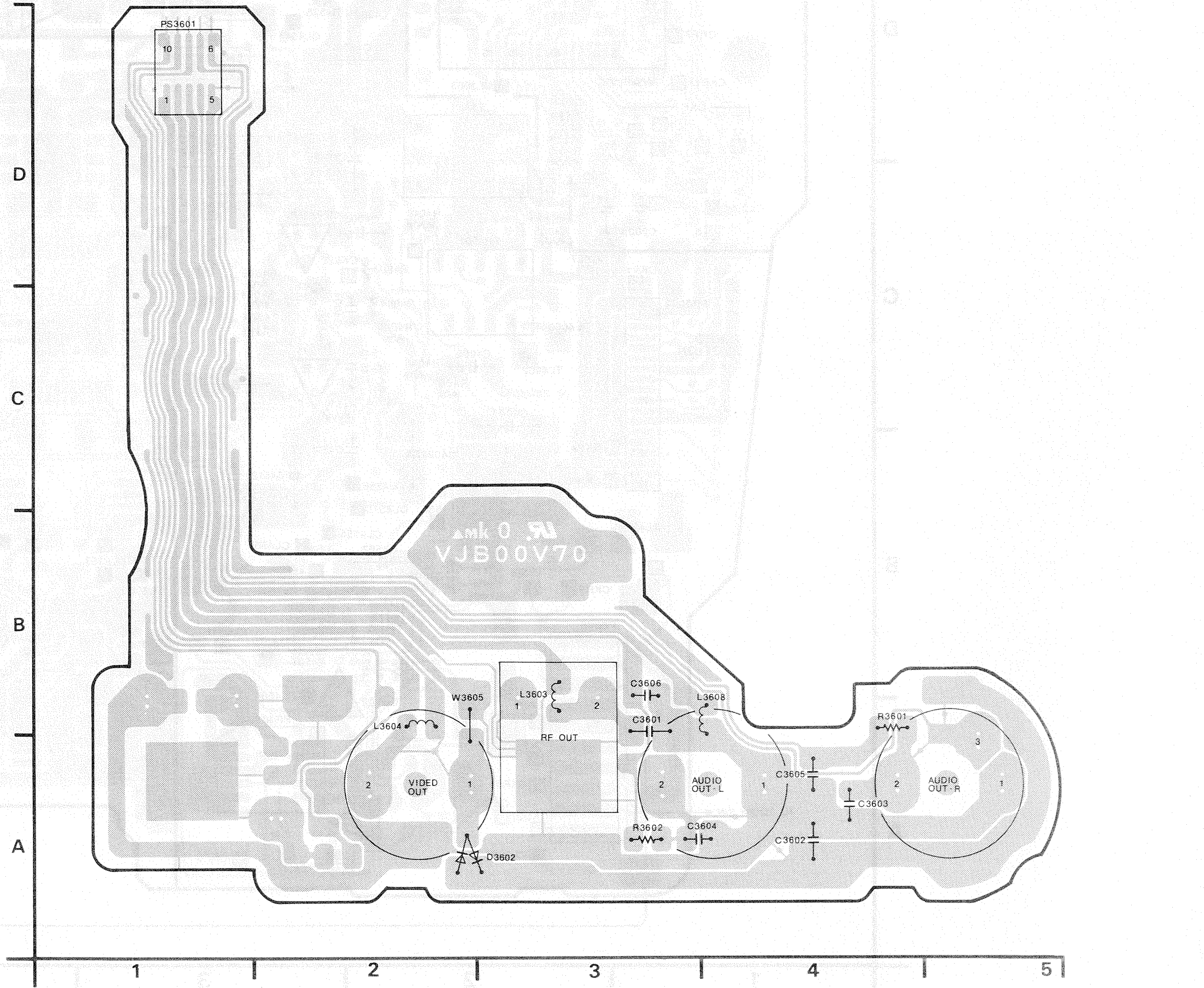
(COMPONENT SIDE)

3-32. AV JACK SCHEMATIC DIAGRAM

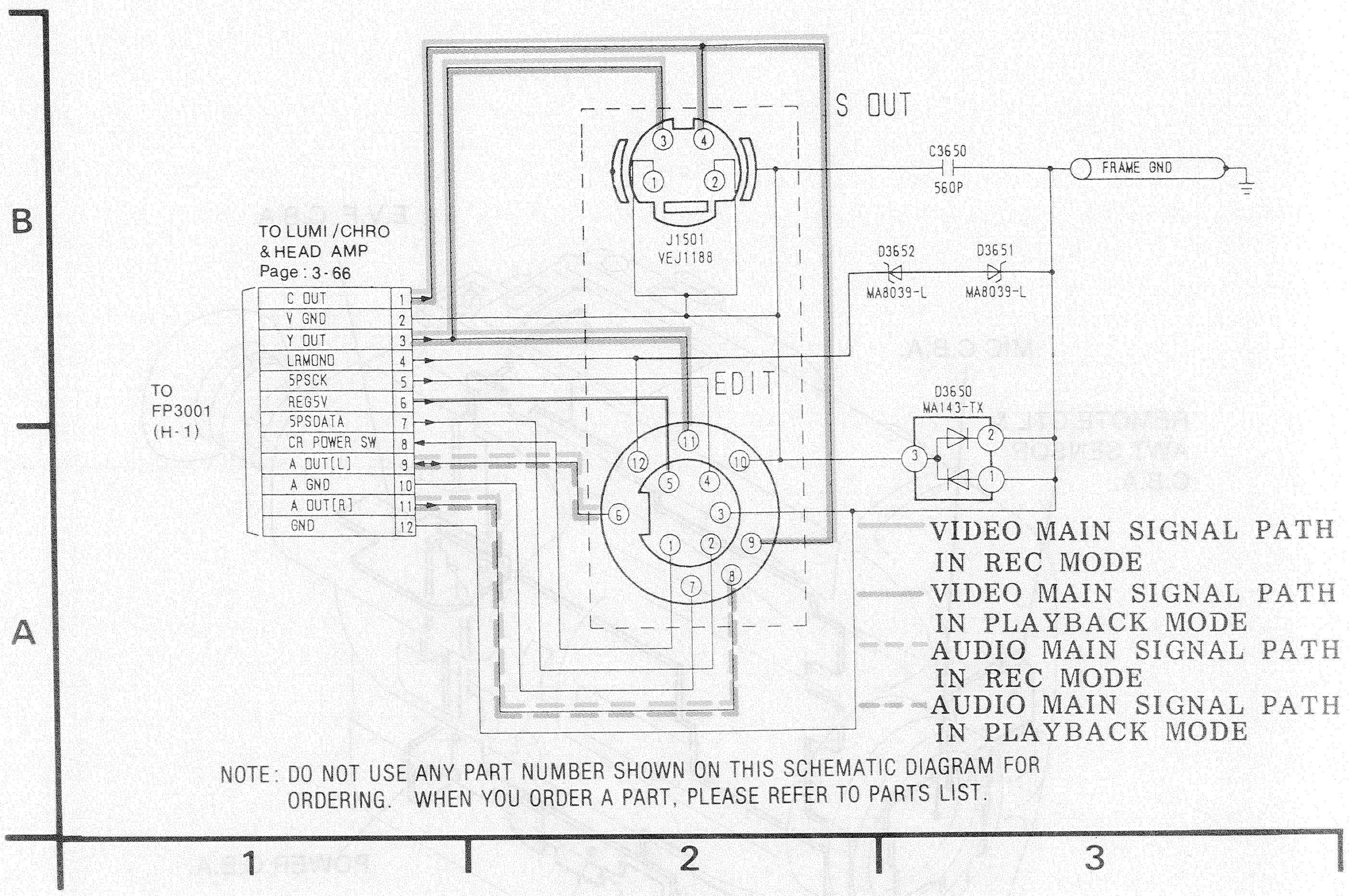

VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
JK3601 VEJ1308
TO LUMI/CHRO
Page : 3-66
PS3601
TO
PP3002
(G-1)
HPOUT/R
HPOUT/L
VOUT
LRMONO
AOUT[R]
AGND
AOUT[L]
RFOUT
RFGND
VGND
R3601 330
C3605 1000P
C3603 2200P
R3602 330
C3606 1000P
C3604 2200P
C3601 0.1
L3608 VLQ0584
L3603 VLQ0584
L3604 VLP0171
AUDIO OUT[R]
AUDIO OUT[L]
RF DC OUT
VIDEO OUT
C3602 0.047
D3602 MA143-TX
FRAMEGND
VSC3689
B
A
1
2
3
4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-33. AV JACK C.B.A. (VEK7462)

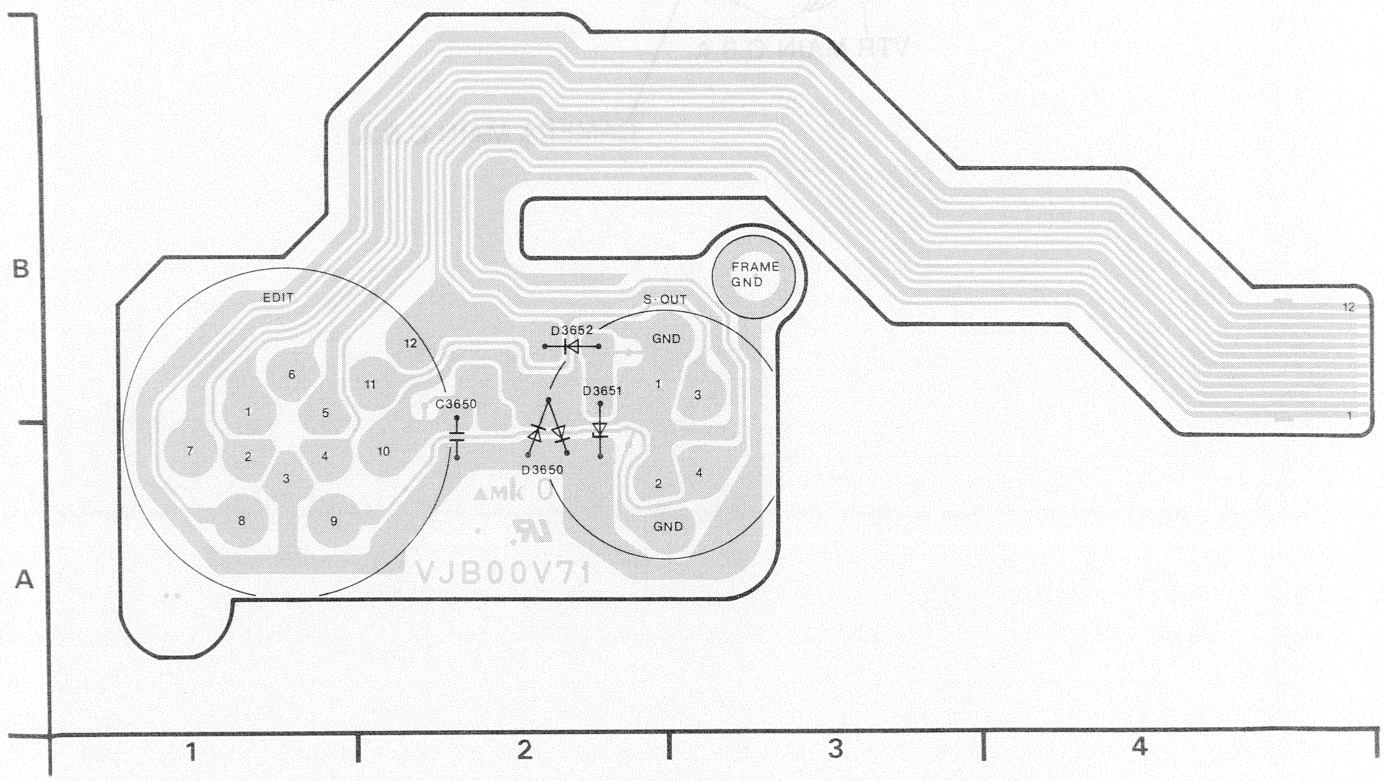

PS3601
10
6
1
5
VJB00V70
L3604
W3605
L3603
RF OUT
C3606
C3601
L3608
R3601
VIDEO OUT
AUDIO OUT L
AUDIO OUT R
C3605
C3603
R3602
C3604
C3602
D3602
D
C
B
A
1
2
3
4
5

3-34. S-JACK SCHEMATIC DIAGRAM

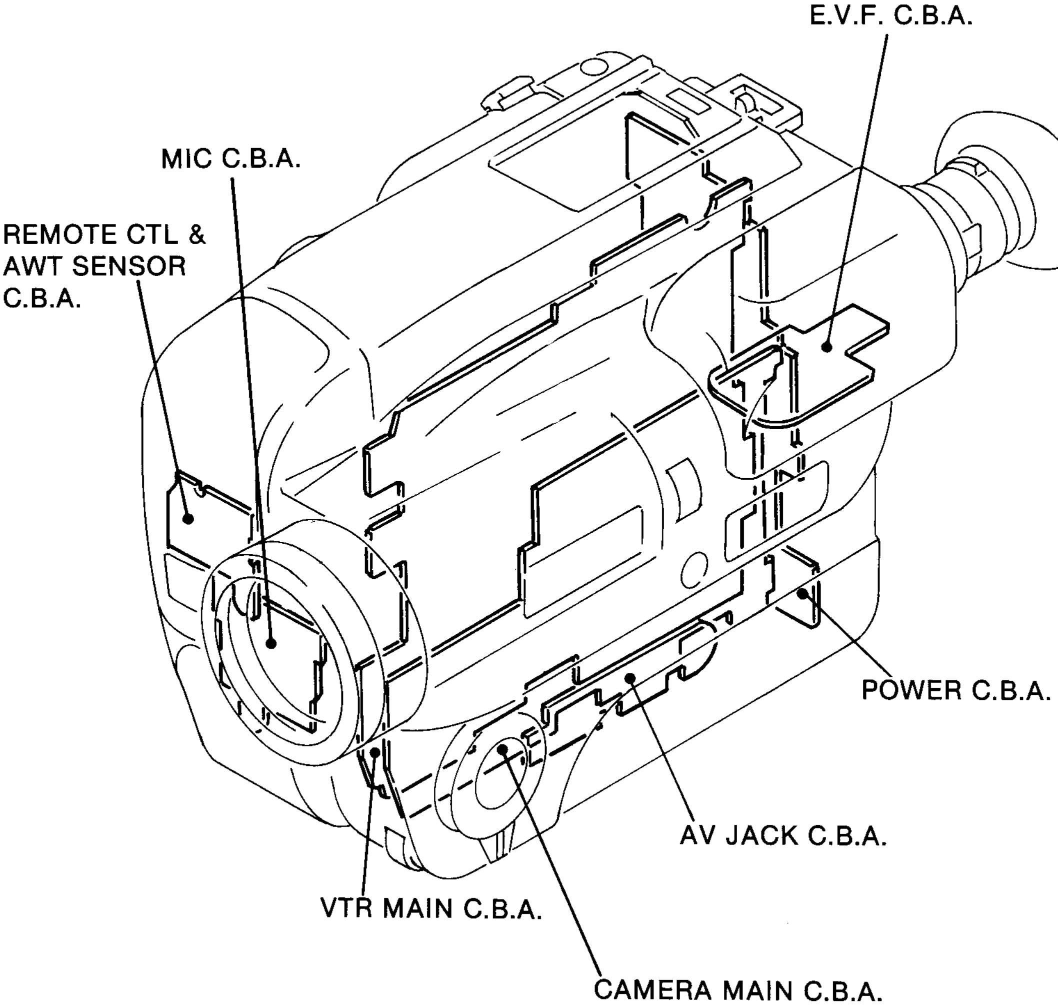

S OUT
C3650
560P
FRAME GND
J1501
VEJ1188
D3652
MA8039-L
D3651
MA8039-L
TO LUMI /CHRO
& HEAD AMP
Page : 3-66
TO
FP3001
(H-1)
C OUT 1
V GND 2
Y OUT 3
LRMONO 4
5PSCK 5
REG5V 6
5PSDATA 7
CR POWER SW 8
A OUT[L] 9
A GND 10
A OUT[R] 11
GND 12
EDIT
D3650
MA143-TX
VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
B
A
1
2
3

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

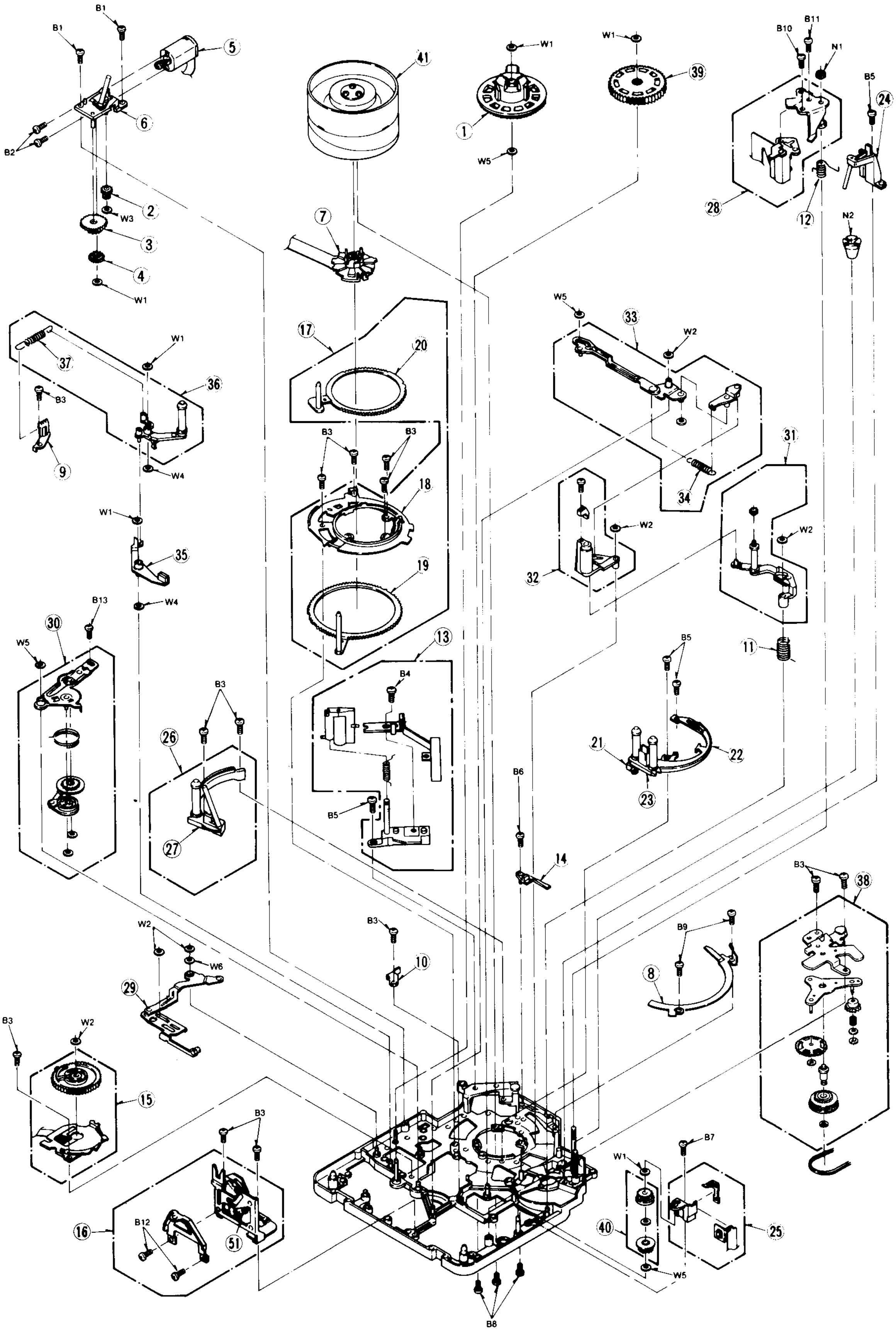
3-35. S-JACK C.B.A. (VEK7464)


FRAME GND
EDIT
S·OUT
D3652
GND
D3651
C3650
D3650
GND
VJB00V71
12
1
B
A
1
2
3
4

3-36. CIRCUIT BOARD LAYOUT


E.V.F. C.B.A.
MIC C.B.A.
REMOTE CTL & AWT SENSOR C.B.A.
POWER C.B.A.
AV JACK C.B.A.
VTR MAIN C.B.A.
CAMERA MAIN C.B.A.

SECTION 4
EXPLODED VIEWS & PARTS LIST
4-1. EXPLODED VIEWS ❶ VTR MECHANISM SECTION (1)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41
W1
W1
39
B10
B11
N1
B5
24
6
B2
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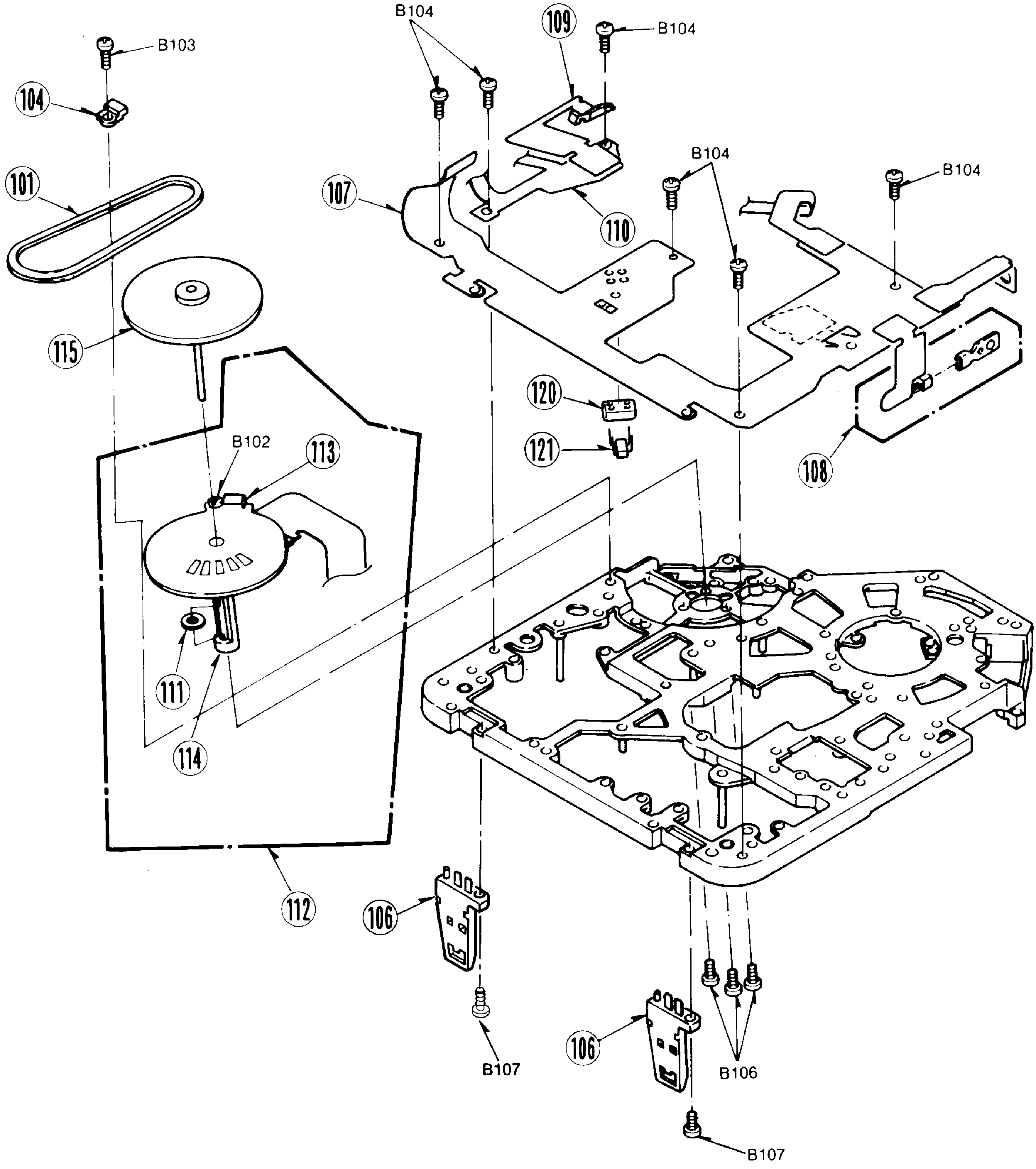
W5
28
12
2
W3
3
7
N2
4
W1
W5
33
W2
17
20
37
W1
36
B3
9
W4
B3
B3
18
34
31
W2
W1
35
32
19
W2
W4
B13
30
W5
13
11
B4
B5
B3
26
21
22
23
B6
B5
27
14
B3
38
B3
B9
W2
W6
10
8
29
B3
W2
15
B3
B7
W1
16
B12
51
40
25
W5
B8

❷ VTR MECHANISM SECTION (2)


B103
104
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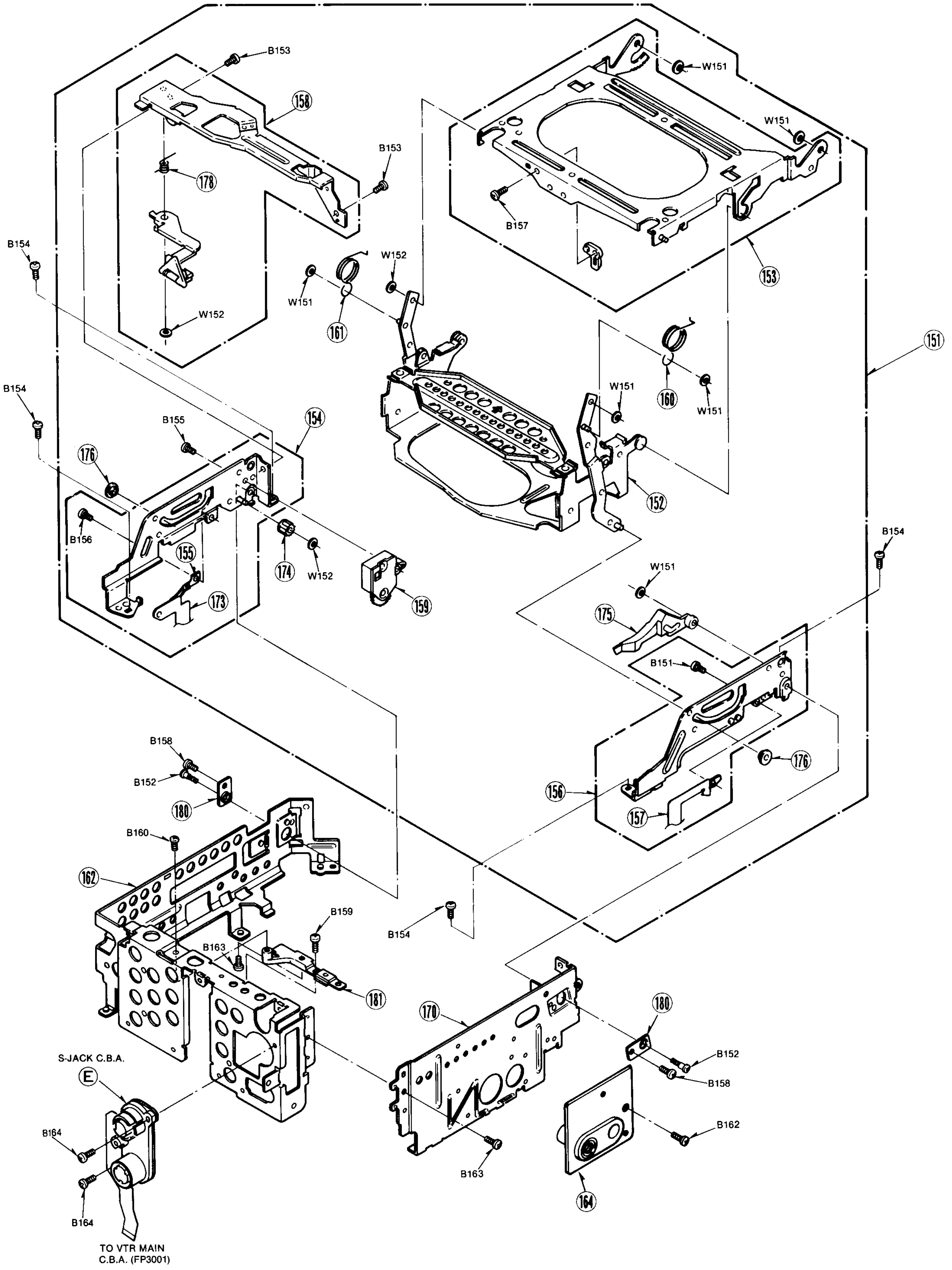
115
B104
109
B104
107
110
B104
B104
120
121
108
B102
113
111
114
112
106
B107
106
B106
B107

❸ VTR MECHANISM SECTION (3)


B153
W151
⑱
B153
W151
⑰
B157
⑱
B154
W152
W151
⑯
⑮
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W151
⑮
B154
W151
B155
⑭
⑰
B156
⑮
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W152
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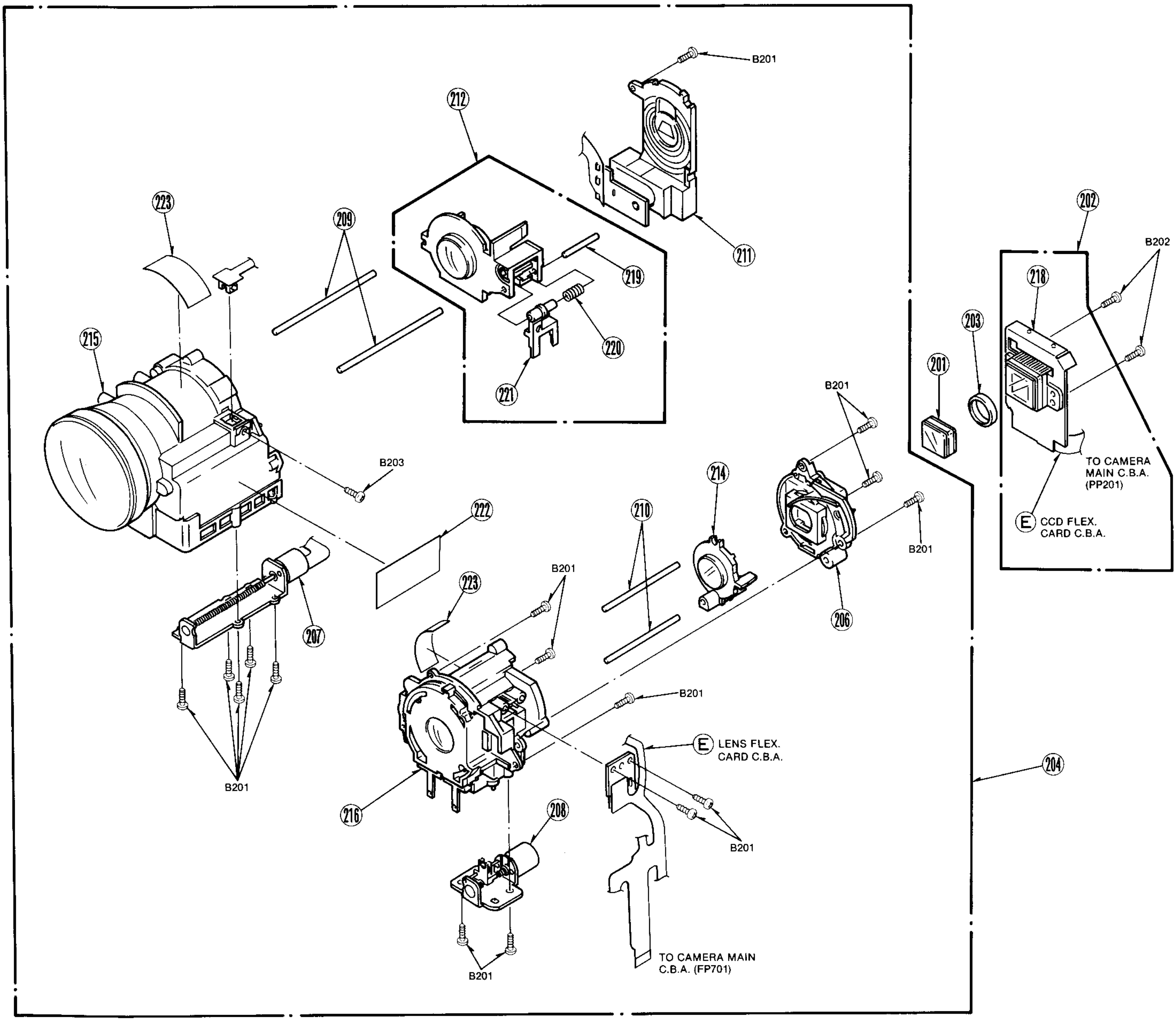
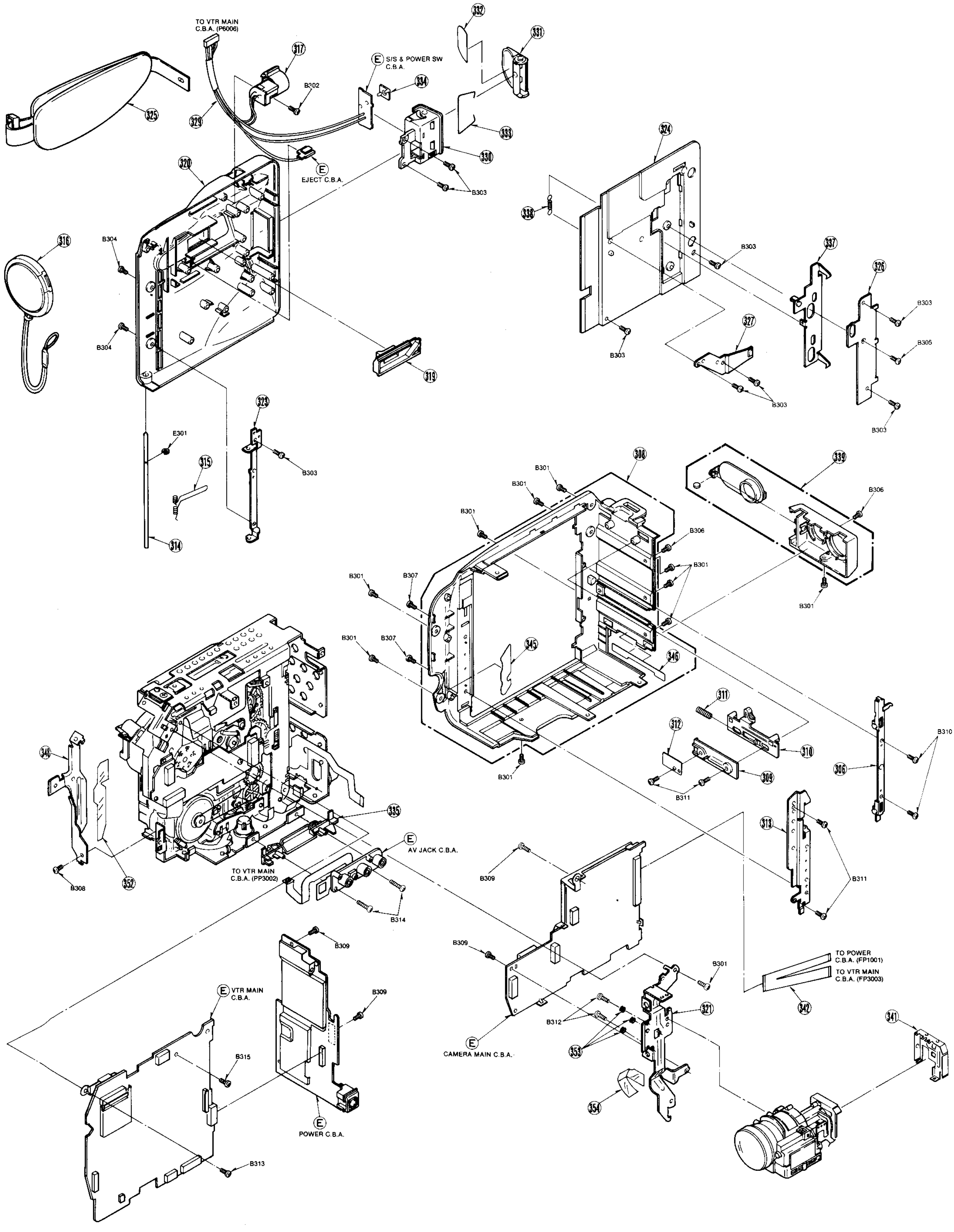
⑮
⑯
B154
W151
⑰
B151
⑰
B158
B152
⑱
⑮
⑮
B160
⑯
B159
B154
B163
⑱
⑰
⑱
S-JACK C.B.A.
Ⓔ
B152
B158
B164
B162
B163
B164
⑯
TO VTR MAIN
C.B.A. (FP3001)

❹ CAMERA LENS SECTION

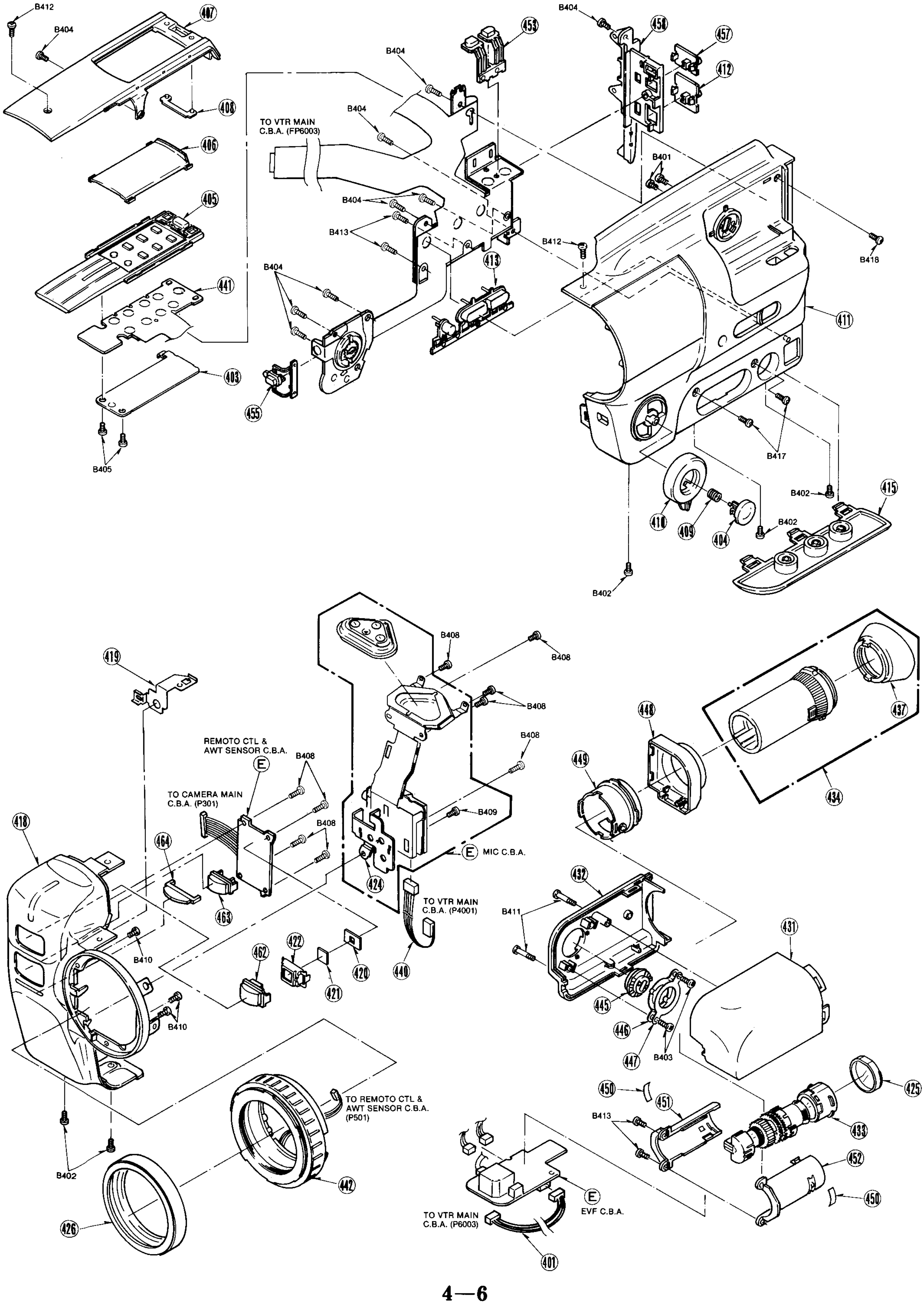


B201
(212)
(223)
(209)
(211)
(219)
(202)
B202
(218)
(215)
(220)
(203)
(201)
(221)
B201
B203
(214)
(222)
(210)
TO CAMERA MAIN C.B.A. (PP201)
Ⓔ CCD FLEX. CARD C.B.A.
B201
B201
(223)
(206)
(207)
B201
Ⓔ LENS FLEX. CARD C.B.A.
(204)
B201
(216)
(208)
B201
B201
TO CAMERA MAIN C.B.A. (FP701)

❺ FRAME & CASING PARTS SECTION (1)


TO VTR MAIN C.B.A. (P6006)
317
B302
E S/S & POWER SW C.B.A.
334
332
331
333
325
329
330
E EJECT C.B.A.
B303
320
324
338
316
B304
B304
B303
337
326
B303
B305
327
319
B303
B303
B303
323
E301
315
B303
314
308
B301
B301
B301
339
B306
B306
B301
B301
B307
B301
B307
345
346
311
312
310
309
B311
306
B310
348
335
E AV JACK C.B.A.
TO VTR MAIN C.B.A. (PP3002)
B314
B308
352
313
B311
B309
B309
B301
321
TO POWER C.B.A. (FP1001)
TO VTR MAIN C.B.A. (FP3003)
342
341
E VTR MAIN C.B.A.
B309
B309
B315
E POWER C.B.A.
B313
B312
353
E CAMERA MAIN C.B.A.
354

❻ FRAME & CASING PARTS SECTION (2)


B412
B404
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408
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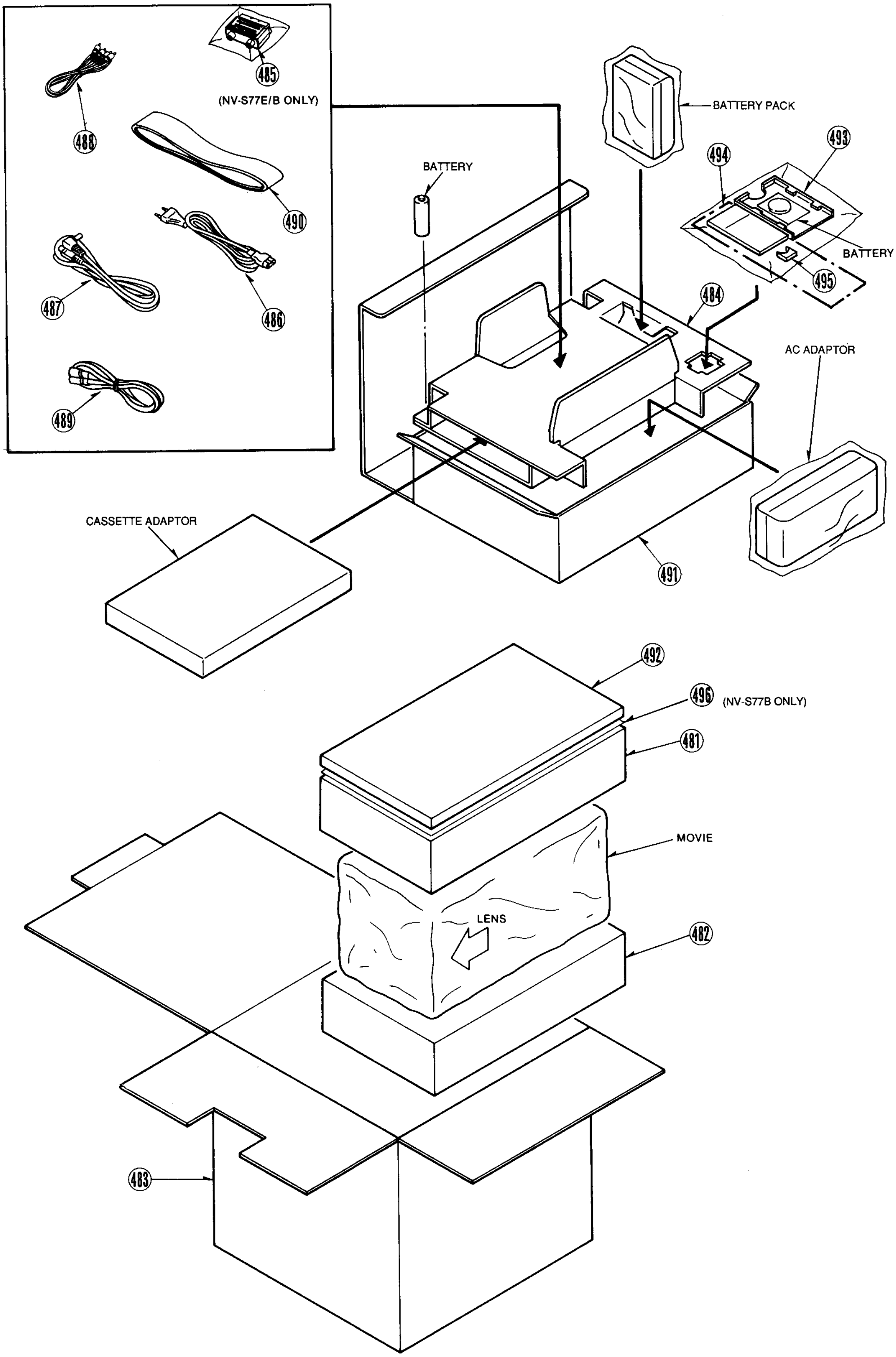
405
441
403
455
B405
TO VTR MAIN
C.B.A. (FP6003)
B404
B413
453
B404
458
457
412
B401
B412
413
411
B418
B417
B402
415
410
409
404
B402
B408
419
REMOTO CTL &
AWT SENSOR C.B.A.
TO CAMERA MAIN
C.B.A. (P301)
B409
MIC C.B.A.
E
418
464
463
B410
462
422
421
420
424
440
TO VTR MAIN
C.B.A. (P4001)
448
449
437
434
432
B411
431
445
446
447
B403
425
433
450
451
452
B413
TO REMOTO CTL &
AWT SENSOR C.B.A.
(P501)
442
426
B402
TO VTR MAIN
C.B.A. (P6003)
EVF C.B.A.
401

❼ PACKING PARTS & ACCESSORIES SECTION


485
(NV-S77E/B ONLY)
488
490
487
486
489
BATTERY PACK
493
494
BATTERY
BATTERY
495
484
AC ADAPTOR
CASSETTE ADAPTOR
491
492
496 (NV-S77B ONLY)
481
MOVIE
LENS
482
483

4-2. MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VDR0226	REEL BASE (S)	1	
2(1)		VDG0821	BRAKE GEAR (A)	1	
3(1)		VDG0822	BRAKE GEAR (B)	1	
4(1)		VDG0823	BRAKE GEAR (C)	1	
5(1)		VEM0417	LOADING MOTOR (1) U.	1	
6(1)		VXA4527	MOTOR HOLDER U.	1	
7(1)		VEK7073	RT CONNECTOR U.	1	
8(1)		VMA8502	T-RING SLIDER	1	
9(1)		VMA8505	TEN-REG.SPRING HOOK	1	
10(1)		VMA8532	PENDULUM ARM HOLDER	1	
11(1)		VMB2362	T3 ARM SPRING	1	
12(1)		VMB2365	AC HEAD SPRING	1	
13(1)		VXA5306	S-GUIDE STAND U.	1	
14(1)		VMD1851	T-BOAT GUIDE	1	
15(1)		VSR0096	MODE SWITCH U.	1	
16(1)		VXA4515	LOCK BASE U.	1	
17(1)		VXA4517	LOADING RING U.	1	
18(1)		VMD1824	RING GUIDE	1	
19(1)		VXA4518	T-RING U.	1	
20(1)		VXA4519	S-RING U.	1	
21(1)		VEK5549	LED U.	1	
22(1)		VMD1828	T-RAIL	1	
23(1)		VXA5260	T-BOAT U.	1	
24(1)		VXA4528	T4 POST U.	1	
25(1)		VXA4997	T-REEL SENSOR U.	1	
26(1)		VXA5153	S-RAIL U.	1	
27(1)		VXA5124	S-BOAT U.	1	
28(1)		VXA5201	AC HEAD U.	1	
29(1)		VXL2393	EJECT LEVER (1) U.	1	
30(1)		VXL2401	SWING ARM U.	1	
31(1)		VXL2431	T3 ARM (A) U.	1	
32(1)		VXL2139	PINCH ARM U.	1	
33(1)		VXL2140	PINCH DRIVE ARM U.	1	
34(1)		VMB2363	PINCH PRESSURE SPRING	1	
35(1)		VXL2144	PAD ARM U.	1	
36(1)		VXL2145	TEN-REG. ARM U.	1	
37(1)		VMB2364	TEN-REG. SPRING	1	
38(1)		VXL2399	IDLER U.	1	
39(1)		VXP1308	RELAY GEAR U.	1	
40(1)		VXP1313	T-DRIVE GEAR U.	1	
41(1)		VEG1144	CYLINDER U.	1	
51(1)		VMB2369	LOCK SPRING	1	
B1(1)		XQN14+B25FY	SCREW	2	
B2(1)		XQN14+A14	SCREW	2	
B3(1)		XQN14+B2	SCREW	13	
B4(1)		XQN14+BJ35	SCREW	1	
B5(1)		XQN14+B25FY	SCREW	3	
B6(1)		XQN14+B25FY	SCREW	1	
B7(1)		XQN14+B25FY	SCREW	1	
B8(1)		XQN14+C35R	SCREW	3	
B9(1)		VHD0711	SCREW	2	
B10(1)		VHD0700	SCREW	1	
B11(1)		VHD0699	SCREW	1	
B12(1)		XQN14+CF25	SCREW	2	
B13(1)		VHD0707	SCREW	1	
N1(1)		VHN0047	NUT	1	
N2(1)		VHN0175	NUT	1	
W1(1)		VMX2027	WASHER	6	
W2(1)		VMX2026	WASHER	7	
W3(1)		VMX2051	WASHER	1	
W4(1)		XWGV12Z3G	WASHER	2	
W5(1)		XWGV12Y3G	WASHER	3	
W6(1)		VMX2026	WASHER	1	
101(2)		VDV0232	CAPSTAN BELT	1	
104(2)		VMD1846	CAPSTAN STOPPER	1	
106(2)		VSH0055	REC SAFETY SW U.	2	
107(2)		VWJ0878	MECH.FLEXIBLE CARD	1	
108(2)		VXA4511	PHOTO (L) U.	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
109(2)		VXA4514	PHOTO (R) U.	1	
110(2)		VXA4997	T-REEL SENSOR U.	1	
111(2)		VDB1129	LOWER BEARING	1	
112(2)		VEK7314	STATOR U.	1	
113(2)		VBK0059	MR HEAD	1	
114(2)		VXD0134	HOUSING U.	1	
115(2)		VXP1303	ROTOR U.	1	
120(2)		VMD1842	REEL SENSOR MOUNT	1	
121(2)		ON2170-LM	REEL SENSOR	1	
B102(2)		VHD0593	SCREW	1	
B103(2)		XQN14+B2	SCREW	1	
B104(2)		XQN14+C2R	SCREW	5	
B106(2)		XQN14+A3	SCREW	3	
B107(2)		XQN14+CF4	SCREW	2	
151(3)		VXA5198	GARAGE U.	1	
152(3)		VXA5199	HOLDER U.	1	
153(3)		VXA4863	GARAGE (1) U.	1	
154(3)		VXA4510	STAND (L) U.	1	
155(3)		VXA4511	PHOTO (L) U.	1	
156(3)		VXA4513	STAND (R) U.	1	
157(3)		VXA4514	PHOTO (R) U.	1	
158(3)		VXL2222	TAPE GUIDE U.	1	
159(3)		VXP1472	DUMPER	1	
160(3)		VMB2367	UP SPRING (R)	1	
161(3)		VMB2368	UP SPRING (L)	1	
162(3)		VMP4104	MAIN FRAME	1	
164(3)		VMD2229	TRIPOD FRAME	1	
170(3)		VMP4103	BOTTOM FRAME	1	
173(3)		VWJ0548	PHOTO FLEX.CARD	1	
174(3)		VDG0827	DUMPER RELAY GEAR	1	
175(3)		VML2580	TAPE OPEN LEVER	1	
176(3)		VDP1406	ARM HOLDER	2	
178(3)		VMB2498	TAPE GUIDE SPRING	1	
180(3)		VGQ3137	INSLULATION PIECE (A)	2	
181(3)		VGQ3295	INSULATION PIECE (B)	1	
B151(3)		VHD0776	SCREW	1	
B152(3)		VHD0713	SCREW	2	
B153(3)		XQN14+B2	SCREW	2	
B154(3)		VHD0838	SCREW	4	
B155(3)		XQN16+AJ8	SCREW	1	
B156(3)		XQN14+CM2	SCREW	1	
B157(3)		XQS14+A25FZ	SCREW	1	
B158(3)		XQN2+C2	SCREW	2	
B159(3)		XQN2+CF3	SCREW	1	
B160(3)		XQN2+AJ4	SCREW	1	
B162(3)		XQS2+C4	SCREW	1	
B163(3)		XQN2+CF5	SCREW	2	
B164(3)		XQN2+C5	SCREW	2	
W151(3)		VMX1042	WASHER	6	
W152(3)		VMX1061	WASHER	3	
201(4)		VDL0421	CRYSTAL FILTER	1	
202(4)		VEK9000	CCD UNIT	1	
203(4)		VMX2376	CCD CUSHION	1	
204(4)		VXW0194	LENS U.	1	
206(4)		VDW0319	CRYSTAL MOUNT PLATE	1	
207(4)		VEM0472	ZOOM MOTOR U.	1	
208(4)		VEM0451	FOCUS MOTOR U.	1	
209(4)		VMS5735	Z GUIDE POLE	2	
210(4)		VMS5736	F GUIDE POLE	2	
211(4)		VXL2445	IRIS U.	1	
212(4)		VXP1554	2ND. MOVING FRAME U.	1	
214(4)		VXP1555	4TH. MOVING FRAME U.	1	
215(4)		VXQ0440	MAIN FRAME U.	1	
216(4)		VXQ0441	3RD. LENS FRAME U.	1	
218(4)		VSC3771	CCD SHIELD CASE	1	
219(4)		VMS5734	RACK G.P	1	
220(4)		VMB2796	2ND. SPRING	1	
221(4)		VML2911	2ND. RACK	1	
222(4)		VMA9343	PLUMBIC SHEET(A)	1	
223(4)		VMA9344	PLUMBIC SHEET(B)	2	
B201(4)		XQN16+CJ5	SCREW	16	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
B202(4)		XQN16+CJ6	SCREW	2	
B203(4)		XQN17+CJ5	SCREW	1	
306(5)		VYK4655	CASSETTE COVER LOCK ANGLE U	1	
308(5)		VYK5883	SIDE CASE (L)(1) U.	1	
309(5)		VGQ3139	BATT. LOCK HOLD PLATE	1	
310(5)		VGQ3760	BATT. LOCK LEVER	1	
311(5)		VMB2483	BATT. LOCK SPRING	1	
312(5)		VMZ2215	BATT. BLIND BARRIER	1	
313(5)		VMP3909	HINGE(A)	1	
314(5)		VMS4762	SHAFT	1	
315(5)		VMB2669	SPRING	1	
316(5)		VYF2157	HOOD CAP U.	1	
317(5)		VXU1258	ZOOM BUTTON U.	1	
319(5)		VGU6428	LOCK RELEACE (EJECT) KNOB	1	
320(5)		VYP5622	CASSETTE COVER (1) UNIT	1	
321(5)		VMP4669	CAMERA FRAME	1	
323(5)		VMP3910	HINGE(B)	1	
324(5)		VGQ3281	CASSETTE COVER HOLDER	1	
325(5)		VYC0618	GRIP BELT U.	1	
326(5)		VMP3912	CASSETTE LOCK ANGLE HOLDER	1	
327(5)		VMC0992	CASSETTE DOWN SPRING	1	
329(5)		VEE9301	GRIP CONNECTOR CABLE	1	
330(5)		VGQ3731	S/S BUTTON HOLDER	1	
331(5)		VXU1274	S/S BUTTON (1) U.	1	
332(5)		VGQ3588	S/S BUTTON SHEET	1	
333(5)		VMB2594	S/S BUTTON COVER SPRING	1	
334(5)		VMG0833	RUBBER SW	1	
335(5)		VGQ3768	AV JACK HOLDER	1	
337(5)		VYK4656	CASSETTE LOCK ANGLE (B) U.	1	
338(5)		VMB2384	CASSETTE LOCK SPRING	1	
339(5)		VYK5878	S-JACK COVER U.	1	
341(5)		VSC3844	CCD SHIELD CASE (UPPER)	1	
342(5)		VWJ0921	CAMERA FLEX. CARD	1	
345(5)		VGQ3315	HOOKING BLINDER SHEET	1	
346(5)		VMZ2220	BATT. BLINDER BARRIER (B)	1	
348(5)		VMD2363	REINFORCEMENT ANGLE	1	
352(5)		VGQ3759	ANGLE BARRIER	1	
353(5)		VMG0952	RUBBER SPACER	3	
354(5)		VGQ3878	CAMERA FRAME BARRIER	1	
B301(5)		VHD0729	SCREW	11	
B302(5)		XQN2+CJ8FZ	SCREW	1	
B303(5)		XQN2+CJ6FZ	SCREW	9	
B304(5)		XQN2+C4FZ	SCREW	2	
B305(5)		XQS2+CJ6FZ	SCREW	1	
B306(5)		XQN2+CF55FZ	SCREW	2	
B307(5)		XQS2+C3FZ	SCREW	2	
B308(5)		XQN2+CF3	SCREW	1	
B309(5)		XQN2+CF5	SCREW	4	
B310(5)		XQN2+AJ4	SCREW	2	
B311(5)		XTB2+4G	SCREW	4	
B312(5)		VMS5604	SCREW	2	
B313(5)		VHD0875	SCREW	1	
B314(5)		XQN2+CF14	SCREW	2	
B315(5)		XQN2+CF6	SCREW	1	
E301(5)		XUC2FP	E-RING	1	
401(6)		VEE9023	EVF CONNECTOR CABLE	1	
403(6)		VMP4169	OPERATION HOLD PLATE	1	
404(6)		VGU6865	MODE BUTTON	1	
405(6)		VYK6095	VTR OPETRATION PANEL U.	1	
406(6)		VGQ3495	CURSOR	1	
407(6)		VKM3881	TOP CASE	1	
408(6)		VGL0575	PANEL LIGHT	1	
409(6)		VMB2531	MODE BUTTON SPRING	1	
410(6)		VGU6867	MODE SELECT LEVER	1	
411(6)		VYK6437	SIDE CASE (R)(1) U.	1	
412(6)		VGU6605	Hi-Fi SELECT KNOB	1	
413(6)		VGU6862	CAMERA OPERATION BUTTON	1	
415(6)		VKF2246	AV JACK COVER	1	
418(6)		VYK6444	FRONT CASE (1) U.	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
419(6)		VGQ3756	FRONT EARTH PLATE	1	
420(6)		VGQ3306	IR PLATE SPACER	1	
421(6)		VDL0397	IR CUT FILTER	1	
422(6)		VGQ3310	IR PLATE HOLDER	1	
424(6)		VMP4341	FRONT FIXING ANGLE (A)	1	
425(6)		VKW1806	PROTECTION PANEL	1	
426(6)		VYF2155	LENS HOOD U.	1	
431(6)		VKM4111	EVF CASE (R)	1	
432(6)		VKM3877	EVF CASE (L)	1	
433(6)		M01KUA07WB03	CRT	1	
434(6)		VYQ1036	SLIDE CASE U.	1	
437(6)		VMG0631	EYE CAP	1	
440(6)		VEE9368	MIC CONNECTOR CABLE	1	
441(6)		ESU39023	OPETRATION U.	1	
442(6)		VXP1540	FOCUS RING		
445(6)		VGQ3122	ROTARY PIECE	1	
446(6)		VMC0975	ROTATION LOCK SPRING	1	
447(6)		VGQ3621	EVF ROTARY BARRIER	1	
448(6)		VGQ3497	EVF CASE HOLDER	1	
449(6)		VGQ3493	HOLDER GUIDE	1	
450(6)		VMC0978	SLIDE LOCK SPRING	2	
451(6)		VGQ3500	CRT HOLDER (L)	1	
452(6)		VGQ3501	CRT HOLDER (R)	1	
453(6)		VGU6866	TRACKING BUTTON	1	
455(6)		VGU6864	FOCUS BUTTON	1	
457(6)		VGU6608	AGS KNOB	1	
458(6)		VGQ3494	BLIND PIECE	1	
462(6)		VKW2003	AWT SENSOR WINDOW	1	
463(6)		VKW2004	REMOTO CTL SENSOR WINDOW	1	
464(6)		VGL0599	TALLEY PANEL LIGHT	1	
B401(6)		VHD0584	SCREW	2	
B402(6)		VHD0729	SCREW	5	
B403(6)		VHD0793	SCREW	2	
B404(6)		XTB2+5G	SCREW	9	
B405(6)		XQS2+CQ3	SCREW	2	
B408(6)		XQN16+CJ5	SCREW	9	
B409(6)		XQN2+C2	SCREW	1	
B410(6)		XQN2+CJ6	SCREW	3	
B411(6)		XTN2+16GFZ	SCREW	2	
B412(6)		XQN2+CF55FZ	SCREW	2	
B413(6)		XTB2+8G	SCREW	4	
B415(6)		XQN16+CJ5FZ	SCREW	4	
B417(6)		XQN2+CJ6FZ	SCREW	2	
B418(6)		XQN2+CF10FZ	SCREW	1	
481(7)		VPN3995	CUSHION (UPPER)	1	
482(7)		VPN3996	CUSHION (LOWER)	1	
483(7)		VPG7946	PACKING	1	NV-S77E
483(7)		VPG7947	PACKING	1	NV-S77B
483(7)		VPG7948	PACKING	1	NV-S77A
484(7)		VPN4134	ACCESSORIES PAD	1	
485(7)		VFA0151	21 PIN ADAPTOR	1	NV-S77E/B
486(7)		VJA0664	AC CABLE	1	<!>NV-S77E
486(7)		VJA0940	AC CABLE	1	<!>NV-S77B
486(7)		VJA0754	AC CABLE	1	<!>NV-S77A
487(7)		VJA0941	DC INPUT CABLE	1	NV-S77E/B
487(7)		VJA0769	DC INPUT CABLE	1	NV-S77A
488(7)		VJA0788	AV OUTPUT CABLE	1	
489(7)		VJA0658	S-VIDEO CABLE	1	
490(7)		VFC1757	SHOULDER STRAP	1	
491(7)		VPN4065	ACCESSORIES BOX	1	
492(7)		VQT6068	OPERATING INSTRUCTIONS	1	<!>NV-S77E
			(ENGLISH/GERMAN/FRENCH		
			/ITALIAN)		
492(7)		VQT6069	OPERATING INSTRUCTIONS	1	<!>NV-S77E
			(SPANISH/DUTCH/SWEDISH		
			/DANISH)		
492(7)		VQT6066	OPERATING INSTRUCTIONS	1	<!>NV-S77B
			(ENGLISH)		
492(7)		VQT6067	OPERATING INSTRUCTIONS	1	<!>NV-S77A
			(ENGLISH)		
493(7)		VGQ6893	REMOTO CONTROLLER HOLDER	1	
494(7)		VEQ1697	REMOTO CONTROLLER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
495(7)		VJF1262	BATTERY COVER	1	
496(7)		VQC2450	EASY OPERATING INSTRUCTIONS	1	NV-S77B
			**** JIG & TOOLS *****		
			------ ELECTRICAL -------		
		VFM8180HUPF	VHS-C ALIGMENT TAPE	1	PAL
		VFK0374	COLOUR TEMP.CONV.FILRTER	1	(C12) OR VFK0713
		VFK0375	COLOUR TEMP.CONV.FILRTER	1	(C2) OR VFK0716
		VFK0644	EVR FIXTURE	1	
		VFK0701ROM30	ROM	1	FOR EVR FIXTURE
		VFK0766A	EVR CONNECTION CABLE 5P	1	FOR EVR FIXTURE
		VFK0734W	MEASUREMENT CABLE 24P	1	FOR EVR FIXTURE
		VFK0498	EXTENTION CABLE 4P	1	
		VFK0638	EXTENTION CABLE 10P	1	
		VFK0670	FLAT CABLE 18P	2	
		VFK0728	FLAT CABLE 9P	1	
		VFK0729	FLAT CABLE 6P	1	
		VFK0841	EXTENTION CABLE 28P	1	
		VFK0888	FLAT CABLE 10P	1	
		VFKW0F0139	ATTACHMENT CONNECTOR 7P	1	
		VFKW0F0140	ATTACHMENT CONNECTOR 7P	1	
		VFKW0F0143	ATTACHMENT CONNECTOR 16P	1	
		VFKW0F0136	ATTACHMENT CONNECTOR 16P	1	
		VFKW0F0145	ATTACHMENT CONNECTOR 26P	1	
		VFKW0F0138	ATTACHMENT CONNECTOR 26P	1	
		VFKW0F0147	ATTACHMENT CONNECTOR 28P	1	
		VFKW0T0001	ATTACHMENT CONNECTOR 28P	1	
		VFK0F0001	COMMON CABLE	4	
			---- MECHANICAL ------		
		VFK0743	H-POSITION ADJUSTMENT	1	
		VFK0824	ASTERISK TYPE RENCH	1	
		VFK0335	RETAINING RING REMOVER	1	
		VFK0329	POST ADJ. SCREW DRIVER	1	
		VFK0326	HEX WRENCH SET	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLTONE GREASE	1	

4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note:
1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE : Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3. Unless otherwise specified, All resistors are in OHMS , K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4. The P.C.Board units marked width'■'show below the main assembled parts.
5. The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP23270A	CAMERA MAIN C.B.A.	1	(RTL)
			(Page:4-11)		
		VEP22123D	CCD FLEX. CARD C.B.A.	1	(RTL)
			(Page:4-13)		
		VEK7506	LENS FLEX. C.B.A.	1	(RTL)
			(Page:4-14)		
		VEP23271A	AWT SENSOR C.B.A.	1	(RTL)
			(Page:4-14)		
		VEP28086C	E.V.F. C.B.A.	1	(RTL)
			(Page:4-14)		
		VEK7455	MIC UNIT C.B.A.	1	
			(Page:4-15)		
		VEP03B80A	VTR MAIN C.B.A.	1	(RTL)
			(Page:4-15)		
		VEP00X72A	VTR SUB 1 C.B.A.	1	(RTL)
			(Page:4-20)		
		VEP06B40A	VTR SUB 2 C.B.A.	1	(RTL)
			(Page:4-20)		
		VEP01638A	POWER C.B.A.	1	(RTL)
			(Page:4-20)		
		VEP01764A	POWER SUB C.B.A.	1	(RTL)
			(Page:4-22)		
		VEK7462	AV JACK C.B.A.	1	(RTL)
			(Page:4-22)		
		VEP00W14A	EJECT C.B.A.	1	(RTL)
			(Page:4-22)		
		VEP00V80A	S/S C.B.A.	1	(RTL)
			(Page:4-22)		
		VEK7464	S-JACK C.B.A.	1	(RTL)
			(Page:4-22)		
	■	VEP23270A	CAMERA MAIN C.B.A.		(RTL)
C01		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C03		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C04		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C05		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C07		ECUM1E225ZFM	C.CAPACITOR CH 25V 2.2U	1	
C08-10		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C201		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C202		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C203		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C204		ECST0JX226Z	T.CAPACITOR CH 6.3V 22U	1	
C205		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C206		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C207		ECST0JX226Z	T.CAPACITOR CH 6.3V 22U	1	
C208		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C209		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C210		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C211		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C213-18		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	6	
C219		ECST1AX156Z	T.CAPACITOR 10V 15U	1	
C220		ECST1CY475Z	E.CAPACITOR 16V 47U	1	
C221		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C222		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C223		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C224,25		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	2	
C226		ECST1DX475Z	T.CAPACITOR 20V 4.7U	1	
C227		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C228		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C229		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	1	
C230		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C231		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	1	
C232		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C234		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C236		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C237		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C239		ECST0GY226Z	T.CAPACITOR 4V 22U	1	
C241		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C242,43		ECUX1H080CCV	C.CAPACITOR CH 50V 8P	2	
C244		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C245		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C247		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C248		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C253		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C254		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C256		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C258		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C259,60		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C261		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C262		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C263		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C264		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C265		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C266-68		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	3	
C269		ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C271		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C290		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C301,02		ECST0JY106Z	E.CAPACITOR 6.3V 10U	2	
C303		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C304		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C305		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C306		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C307-09		ECST0JY106Z	E.CAPACITOR 6.3V 10U	3	
C310		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C311		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C312		ECUX1C224ZFV	C.CAPACITOR CH 16V 0.22U	1	
C313		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C314		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C316		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C318-20		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C321		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C322		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C323		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C324		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C325		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C326		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C327,28		ECST0JY106Z	E.CAPACITOR 6.3V 10U	2	
C329,30		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C331		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C334		ECST0JX226Z	T.CAPACITOR CH 6.3V 22U	1	
C335		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C336,37		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C338,39		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C340,41		ECST0JY106Z	E.CAPACITOR 6.3V 10U	2	
C343		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C344		ECST1DX475Z	T.CAPACITOR 20V 4.7U	1	
C345,46		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C347		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C701		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C702		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C703		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C704		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C705		ECEV1CA101	E.CAPACITOR V	1	
C706		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C707		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C708		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C709		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C710		ECUM1A105KBN	C.CAPACITOR CH 10V 1U	1	
C711,12		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C713		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
D03,04		MA110	DIODE	2	
D202,03		1SS355	DIODE	2	
D205-10		1SS355	DIODE	6	
D212		1SS355	DIODE	1	
D301-05		MA728	DIODE	5	
D306		1SS355	DIODE	1	
FL201		VLF1056	FILTER	1	
FL202,03		VLF1114M470	FILTER	2	
FL301		ELB4A524	FILTER	1	
FP301		VJS3320D045	CONNECTOR (FEMALE)	1	
FP701		VJS3320D018	CONNECTOR (FEMALE) 18P	1	
IC03		AN1358S	IC	1	
IC201		VEFH42A	IC	1	
IC202		MN5225	IC	1	
IC203		NN2038FAQ	IC	1	
IC204		TC7SH04FU	IC	1	
IC205		TC7SHU04FU	IC	1	
IC206		SC7S08F	IC	1	
IC207		XC62AP2802MR	IC	1	
IC208,09		TC7SH08FU	IC	2	
IC210		TC7SH08F	IC	1	
IC212		TC7SH04FU	IC	1	
IC301		MN65761T	IC	1	
IC302		CF45814PN	IC	1	
IC303		TC9074F	IC	1	
IC304		MB88345PFBND	IC	1	
IC306		MN67334	IC	1	
IC307		MN1866405M5W	IC	1	
IC309		MN65703T	IC	1	
IC311		TA75W01FU	IC	1	
IC314		X25080S-3C70	IC	1	
IC316		SC7S08F	IC	1	
IC701,02		TB6512AF	IC	2	
IC703		TC4S584F	IC	1	
IC704		LM324DB	IC	1	
L201,02		VLP0155	COIL H	2	
L203		VLQ0426J680	COIL 68UH	1	
L204		VLP0154	INDUCTOR	1	
L205		ELJFC150JB	COIL 15UH	1	
L206		VLP0146	INDUCTOR	1	
L207-09		ELJFC150JB	COIL 15UH	3	
L210,11		VLP0146	INDUCTOR	2	
L212		ELJFC150JB	COIL 15UH	1	
L213		VLQ0426J220	COIL 22UH	1	
L214		ELJFC100JB	COIL 10UH	1	
L215		VLQ0426J1R5	COIL H	1	
L216		VLP0172	COIL H	1	
L217-19		ELJFC150JB	COIL 15UH	3	
L223		ELJFC150JB	COIL 15UH	1	
L301,02		ELJPC6R8KB	COIL 6.8UH	2	
L303		VLQ0464	COIL	1	
L304		ELJFC150JB	COIL 15UH	1	
L305		ELJPC6R8KB	COIL 6.8UH	1	
L306,07		ELJPA150KB	COIL 15UH	2	
L309		ELJPC6R8KB	COIL 6.8UH	1	
L310,11		VLP0146	INDUCTOR	2	
L312		ELJFC150JB	COIL 15UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L313		VLP0146	INDUCTOR	1	
L314		VLQ0426J180	COIL 18UH	1	
L315,16		ELJPC6R8KB	COIL 6.8UH	2	
L317		VLQ0426J101	COIL 100UH	1	
L318		ELJPC6R8KB	COIL 6.8UH	1	
L319-21		ELJFC150JB	COIL 15UH	3	
L322		VLP0146	INDUCTOR	1	
L326		VLP0146	INDUCTOR	1	
L335		VLP0304	COIL H	1	
L336		VLP0305	COIL H	1	
L338		VLP0304	COIL H	1	
L339		VLP0171	INDUCTOR	1	
L701-04		ELJPC6R8KB	COIL 6.8UH	4	
P301		VJP3125B013	CONNECTOR	1	
PP201		VJP3358A012	CONNECTOR (MALE)	1	
PP302		VJP2962A024	CONNECTOR (MALE) 24P	1	
Q01		2SD2216-R	TRANSISTOR	1	
Q201		2SD2216	TRANSISTOR	1	
Q202		2SB1462	TRANSISTOR	1	
Q203		2SD2216	TRANSISTOR	1	
Q205-07		UPA674T	TRANSISTOR	3	
Q301		2SB1462	TRANSISTOR	1	
Q302,03		2SA1790	TRANSISTOR	2	
Q304		2SC4627	TRANSISTOR	1	
Q305		XP1501	TRANSISTOR-RESISTOR	1	
Q306		2SC4627	TRANSISTOR	1	
Q310		2SD2216	TRANSISTOR	1	
Q701		2SD601A	TRANSISTOR	1	
Q702		2SD2216	TRANSISTOR	1	
QR303		MRN2111	TRANSISTOR-RESISTOR	1	
QR304,05		MRN1103	TRANSISTOR-RESISTOR	2	
QR306		XP1212	TRANSISTOR-TRANSISTOR	1	
QR701		MRN1102	TRANSISTOR-RESISTOR	1	
QR702		MRN2102	TRANSISTOR-RESISTOR	1	
R01		VRE0082A822	.RESISTOR W	1	
R02		VRE0082A753	M.RESISTOR CH 1/10W 75K	1	
R03		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R04		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	1	
R05		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R06		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R07		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R08		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R201		ERJ2GEJ221	M.RESISTOR CH 2W 220	1	
R202		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R203,04		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R205		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R206,07		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R210,11		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R212		ERJ2GEJ682	M.RESISTOR CH 2W 6.8K	1	
R213		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	1	
R214		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R215		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R216		ERJ2GEJ474	M.RESISTOR CH 2W 470K	1	
R217		ERJ2GEJ682	M.RESISTOR CH 2W 6.8K	1	
R218		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R219		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R221		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R222		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R223-26		ERJ2GEJ330	M.RESISTOR CH 2W 33	4	
R227,28		ERJ2GEJ150	M.RESISTOR CH 2W 15	2	
R229,30		ERJ2GEJ330	M.RESISTOR CH 2W 33	2	
R231,32		ERJ2GEJ150	M.RESISTOR CH 2W 15	2	
R233,34		ERJ2GEJ330	M.RESISTOR CH 2W 33	2	
R235		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R236		ERJ2GEJ121	M.RESISTOR CH 2W 120	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R238		ERJ2GEJ221	M.RESISTOR CH 2W 220	1	
R239		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R240		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R241		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R242		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R243		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R244		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R245		ERJ2GEJ470	M.RESISTOR CH 2W 47	1	
R246		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R247		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R248		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R249		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R250		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R251		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R252		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R253		ERJ2GEJ123	M.RESISTOR CH 2W 12K	1	
R255		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R256		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R257		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R258,59		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	2	
R260		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R261		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R262		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R263		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R264		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R266		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R267		ERJ2GEJ101	M.RESISTOR CH 2W 100	1	
R268,69		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R270		ERJ2GEJ101	M.RESISTOR CH 2W 100	1	
R271		ERJ2GEJ471	M.RESISTOR CH 2W 470	1	
R272		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R273		ERJ2GEJ271	M.RESISTOR CH 2W 270	1	
R274,75		ERJ2GEJ221	M.RESISTOR CH 2W 220	2	
R276		ERJ2GEJ101	M.RESISTOR CH 2W 100	1	
R277		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R278		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R279		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R280		ERJ2GEJ474	M.RESISTOR CH 2W 470K	1	
R281		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	1	
R282		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R301		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R302-10		ERJ2GEJ102	M.RESISTOR CH 2W 1K	9	
R311		ERJ2GEJ563	M.RESISTOR CH 2W 56K	1	
R312		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R313		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R314		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R315-30		ERJ2GEJ102	M.RESISTOR CH 2W 1K	16	
R332-34		ERJ2GEJ473	M.RESISTOR CH 2W 47K	3	
R335		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R336		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R337		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R338		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R340		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R341		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R342		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R343		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R344		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R345-47		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R349		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R350-65		ERJ2GEJ102	M.RESISTOR CH 2W 1K	16	
R366		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R367		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R368		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R401		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R403-05		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	3	
R406		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R407		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R409,10		ERJ2GEJ105	M.RESISTOR CH 2W 1M	2	
R411		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R412,13		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	2	
R414		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R415		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R416-23		ERJ2GEJ473	M.RESISTOR CH 2W 47K	8	
R425-29		ERJ2GEJ473	M.RESISTOR CH 2W 47K	5	
R430		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R431		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R432		ERJ2GEJ471	M.RESISTOR CH 2W 470	1	
R434		ERJ2GEJ471	M.RESISTOR CH 2W 470	1	
R435		ERJ2GEJ122	M.RESISTOR CH 2W 1.2K	1	
R436		ERJ2GEJ393	M.RESISTOR CH 2W 39K	1	
R437		ERJ2GEJ123	M.RESISTOR CH 2W 12K	1	
R438		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R439		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R441		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R443		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R444		ERJ2GEJ682	M.RESISTOR CH 2W 6.8K	1	
R445		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R446		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R447		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R449		ERJ2GEJ122	M.RESISTOR CH 2W 1.2K	1	
R450		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R451		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R452		ERJ2GEJ562	M.RESISTOR CH 2W 5.6K	1	
R466		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R467		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R468		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R469		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R470		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R471		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	1	
R472		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R701,02		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	2	
R703,04		ERJ2GEJ333	M.RESISTOR CH 2W 33K	2	
R705,06		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	2	
R707		ERJ2GEJ101	M.RESISTOR CH 2W 100	1	
R708,09		ERJ2GEJ473	M.RESISTOR CH 2W 47K	2	
R710		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R711,12		ERJ2GEJ473	M.RESISTOR CH 2W 47K	2	
R713		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R714		ERJ2GEJ273	M.RESISTOR CH 2W 27K	1	
R715		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R716		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R717		ERJ2GEJ101	M.RESISTOR CH 2W 100	1	
R718		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R719		ERJ3GEYG202	M.RESISTOR CH 1/16W 2K	1	
R720,21		ERJ2GEJ123	M.RESISTOR CH 2W 12K	2	
R722		ERJ2GEJ224	M.RESISTOR CH 2W 220K	1	
R723		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R724		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R725		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R726		ERJ2GEJ474	M.RESISTOR CH 2W 470K	1	
R727		ERJ2GEJ824	M.RESISTOR CH 2W 820K	1	
R728		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R729		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R730		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R732,33		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R734		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R735		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R736		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R737		ERJ2GEJ221	M.RESISTOR CH 2W 220	1	
X201		VSX0675	CRYSTAL OSCILLATOR	1	
X301		VSX0669	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMZ2376	BARRIER	1	
		VMZ2510	BARRIER	1	
		VSC4190	SHIELD COVER	1	
		VSC4396	CAMERA SHIELD (TOP)	1	
	■	VEP22123D	CCD FLEX. CARD C.B.A.		(RTL)
B291		VJS3500C012	CONNECTOR (FEMALE) 12P	1	
C292		ECST1VX225Z	T.CAPACITOR 35V 2.2U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C293,C294		ECUM1E473ZFN	C.CAPACITOR 25V 0.047U	2	
C295		ECUM1E104ZFN	C.CAPACITOR 25V 0.1U	1	
D291		MA153	DIODE	1	
Q291		2SC2295	TRANSISTOR	1	
R291		ERJ6GEYG560	M.RESISTOR CH 1/16W 56	1	
R292		ERJ6GEYF472	M.RESISTOR CH 1/16W 4.7K	1	
W291		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
			MISCELLANEOUS		
		VJB22123	FLEX. CARD	1	
	■	VEK7506	LENS FLEX. C.B.A.		(RTL)
			MISCELLANEOUS		
		ON1004-R	PHOTO SENSOR	1	
	■	VEP23271A	AWT SENSOR C.B.A.		(RTL)
C501		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C502		ECST0JY475Z	T.CAPACITOR CH 6.3V 4.7U	1	
C503		ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C6801,02		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	2	
C6803		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C6804		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6805		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
D502		CL150UR	DIODE	1	
D6801		1SS355	DIODE	1	
D6802		MA141WK	DIODE	1	
D6803		MA141WA	DIODE	1	
IC501		M52944FP	IC	1	
IC6801		UPD7564G557	IC	1	
IC6803		GP1U102X	IC	1	
L501		ELJPC6R8KB	COIL 6.8UH	1	
P501		VJP3007E004	CONNECTOR (MALE) 4P	1	
Q6801		2SD1819	TRANSISTOR	1	
R502		ERJ6GEYJ181	M.RESISTOR CH 1/10W 180	1	
R6801,02		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	2	
R6803		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6804		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6805,06		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R6807		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
X6801		VSX0678	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VEE9302	WIRE CABLE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP28086C	E.V.F. C.B.A.		(RTL)
C801		ECQB1C104JB	P.CAPACITOR 16V 0.1U	1	
C802-04		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	3	
C805		ECST0JX226Z	T.CAPACITOR CH 6.3V 22U	1	
C806		ECUX1C123KBV	C.CAPACITOR CH 16V 0.012U	1	
C807		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C808		ECEV0JG101ZP	E.CAPACITOR 6.3V 100U	1	
C809		ECEV1CA470F	E.CAPACITOR CH 16V 47U	1	
C810		ECUM2A432JUM	C.CAPACITOR 100V 4300P	1	
C811		ECST1AD476Z	T.CAPACITOR CH 10V 47U	1	
C812		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C813		ECUM2J221KBM	C.CAPACITOR 630V 220P	1	
C814		ECEV1HAN010R	E.CAPACITOR 50V 1U	1	
C815		ECUM2H331KBM	C.CAPACITOR CH 500V 330P	1	
C816		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C817		ECST0JX226Z	T.CAPACITOR CH 6.3V 22U	1	
C831		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C861		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C862		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C863		ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
D803		SFPL-52	DIODE	1	
IC801		AN2516S	IC	1	
L801		ELJPA100KB	COIL 10UH	1	
L802		ELH5L222	COIL H	1	
L804		VLQ0163J680	COIL 68UH	1	
L805		ELJPA100KB	COIL 10UH	1	
L806		ELJPA470KB	COIL 47UH	1	
P801		VJP3499D004	CONNECTOR (MALE) 4P	1	
P802		VJP3172B005	CONNECTOR (MALE) 5P	1	
P803		VJP3125B003	CONNECTOR (MALE) 3P	1	
P804		VJP1229T	CONNECTOR (MALE) 2P	1	
Q802		2SD968A-S	TRANSISTOR	1	
Q803,04		2SA1748	TRANSISTOR	2	
Q805,06		2SD2216	TRANSISTOR	2	
QR881		UN5212	TRANSISTOR-RESISTOR	1	
QR882		UN2130X	TRANSISTOR-RESISTOR	1	
R801		ERJ6ENF4422	M.RESISTOR CH 1/10W 2.2K	1	
R802		ERJ6GEYJ3R9	M.RESISTOR CH 1/10W 3.9	1	
R805		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R808		VRE0071E242	M.RESISTOR CH 1/10W 2.4K	1	
R809		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R810		VRE0071E104	M.RESISTOR 100K	1	
R815		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R816,17		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R818		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R819,20		ERJ6GEYJ275	M.RESISTOR CH 1/10W 2.7M	2	
R821		ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R823		ERJ3GEYJ8R2	M.RESISTOR CH 1/16W 8.2	1	
R829		ERJ6ENF4222	M.RESISTOR CH 1/10W 2.2K	1	
R833		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R834		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R835		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R840		ERJ8GEYJ685	M.RESISTOR CH 1/8W 6.8M	1	
R841,42		ERJ6GEYJ475	M.RESISTOR CH 1/10W 4.7M	2	
R843		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R844		ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R845		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R850		VRE0071E822	M.RESISTOR CH 1/10W 8.2K	1	
R851		VRE0071E392	M.RESISTOR CH 1/10W 3.9K	1	
R852		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R853		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R855		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R856		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R861		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R862		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R863		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R864		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R883		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
T801		ETF08L27A	TRANSFORMER	1	<!>
VR801		EVM7JSX30BE2	V.RESISTOR W	1	
VR803		EVM7TSX00BV6	V.RESISTOR	1	
VR804		EVM7BSX30B26	V.RESISTOR	1	
	■	VEK7455	MIC UNIT C.B.A.		
C4801-03		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	3	
C4804		ECUM1C823KBN	C.CAPACITOR CH 16V 0.082U	1	
C4805		ECUX1C333KBV	C.CAPACITOR CH 16V 0.033U	1	
C4806		ECUX1C153KBV	C.CAPACITOR CH 16V 0.015U	1	
C4807		ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C4808		ECUX1C333KBV	C.CAPACITOR CH 16V 0.033U	1	
C4809,10		ECUM1C823KBN	C.CAPACITOR CH 16V 0.082U	2	
C4811		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C4812,13		ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	2	
C4820,21		ECUX1C153KBV	C.CAPACITOR CH 16V 0.015U	2	
C4822		ECST1CY105Z	T.CAPACITOR CH 16V 1U	1	
C4823		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4824		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C4825		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4826		ECST1CY105Z	T.CAPACITOR CH 16V 1U	1	
C4827		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4828		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C4829		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4830		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4832		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4833		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
IC4801		BA14741F	IC	1	
JK4801		VJJ0414	JACK	1	
P4801		VJP3172B004	CONNECTOR (MALE) 4P	1	
Q4805		2SD1819A	TRANSISTOR	1	
Q4806		2SB1218A	TRANSISTOR	1	
Q4807		2SD1819A	TRANSISTOR	1	
Q4808		2SB1218A	TRANSISTOR	1	
Q4809		2SD1819	TRANSISTOR	1	
Q4810		2SD1819A	TRANSISTOR	1	
R4801-03		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	3	
R4804		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R4805		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4806		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R4807		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4808,09		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R4810		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R4811		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4812		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4813		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4814-17		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	4	
R4826		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4827		ERJ3GEYJ242	M.RESISTOR CH 1/16W 2.4K	1	
R4828		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4829		ERJ3GEYJ242	M.RESISTOR CH 1/16W 2.4K	1	
R4834		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R4835		ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
R4836		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R4837		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4838		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4839		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4840		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R4841		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R4842		ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
R4843		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R4844		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4845		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4846		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R4847		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R4848		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
			MISCELLANEOUS		
		VSC3921	MIC SHIELD CASE (A)	1	
		VSC3922		1	
		VMP4341		1	
		XQN2+C2	SCREW	1	
	■	VEP03B80A	VTR MAIN C.B.A.		(RTL)
B6004		VJP3358C016	CONNECTOR (MALE) 16P	1	
C2001		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C2002		ECST1CY105Z	T.CAPACITOR CH 16V 1U	1	
C2003		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C2004		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C2005		ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C2007		ECST1CY105Z	T.CAPACITOR CH 16V 1U	1	
C2009		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C2010		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2011		ECCF1H101JC	C.CAPACITOR 50V 100P	1	
C2012,13		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	
C2014		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C2015-17		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	3	
C2018		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C2020-22		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	
C2023		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C2025-27		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C2028		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C2029		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C2040-42		ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	3	
C2043		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2070		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3002		ECEV0GA470	E.CAPACITOR CH 4V 47U	1	
C3003,04		ECEV0GA471	E.CAPACITOR CH 4V 470U	2	
C3005		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	1	
C3006		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3007		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3008		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3011,12		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	2	
C3013		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C3014		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3015		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3016		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C3017		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3018		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3020		ECUX1H070CCV	C.CAPACITOR CH 50V 7P	1	
C3021		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C3022		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3029		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3030		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3031		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3032		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3033		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3036,37		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	2	
C3041		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3042		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3044		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3045		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3047		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C3048		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C3049		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C3050		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C3052		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3054		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3055		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3060		ECEV1EA4R7	E.CAPACITOR CH 25V 4.7U	1	
C3061		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C3062		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3063		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3065		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3071		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C3072		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3075		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C3083		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3085		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	1	
C3087		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C3208		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3209		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3210		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3211		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C3214		ECUM1E393KBN	C.CAPACITOR CH 25V 0.039U	1	
C3215		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C4001		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4002		ECST1EY474Z	T.CAPACITOR CH 25V 0.47U	1	
C4004		ECUX1C123KBV	C.CAPACITOR CH 16V 0.012U	1	
C4005		ECST0JY475Z	T.CAPACITOR CH 6.3V 4.7U	1	
C4006		ECST1EY474Z	T.CAPACITOR CH 25V 0.47U	1	
C4007		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C4008		ECUM1C474KBM	C.CAPACITOR CH 16V 0.47U	1	
C4010,11		ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	2	
C4012		ECUM1C334KBN	C.CAPACITOR CH 16V 0.33U	1	
C4013		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C4014		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C4015		ECUX1C223KBV	C.CAPACITOR CH 16V 0.022U	1	
C4016		ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
C4017		ECUM2A472JCM	C.CAPACITOR 100V 4700P	1	
C4018		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4020		ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C4021		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C4023		ECUX1H392KBV	C.CAPACITOR CH 50V 3900P	1	
C4501		ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	1	
C4502,03		ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	2	
C4504,05		ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	2	
C4506,07		ECEV0GA330	E.CAPACITOR CH 4V 33U	2	
C4508,09		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	2	
C4510,11		ECST0JY106Z	E.CAPACITOR 6.3V 10U	2	
C4512,13		ECEV05A470	E.CAPACITOR CH 4V 47U	2	
C4514-19		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	6	
C4522,23		ECST0JY106Z	E.CAPACITOR 6.3V 10U	2	
C4524,25		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	2	
C4526		ECEV0GA101	E.CAPACITOR CH 4V 100U	1	
C4527		ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C4528		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C4532,33		ECST1AY335Z	T.CAPACITOR CH 10V 3.3U	2	
C4534		ECEV0JA220R	E.CAPACITOR 6.3V 22U	1	
C4535		ECST0JY475Z	T.CAPACITOR CH 6.3V 4.7U	1	
C4539-41		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	3	
C4542,43		ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	2	
C4544		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C4545,46		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	2	
C4550,51		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	2	
C5001		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C5002		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C5003		ECUM1C683KBN	C.CAPACITOR CH 16V 0.068U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C5004		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C5005		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C5006		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C5007		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C5008		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C5009		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C5010		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C5011		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C5012,13		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	2	
C5014		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C5015-17		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	3	
C5018		ECUX1C333KBV	C.CAPACITOR CH 16V 0.033U	1	
C5020		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C5021-24		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	4	
C5025		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C5026-29		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	4	
C5030-33		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	4	
C5034		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5036		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5037-40		ECUX1H100CCV	C.CAPACITOR CH 50V 10P	4	
C5041,42		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	2	
C5043		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C5501		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5502		ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5503		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C5504		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C5505		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C5506		ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	1	
C5507		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C5508		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5509		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5510,11		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5512		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C5513		ECUX1H223ZFV	C.CAPACITOR CH 50V 0.022U	1	
C5514-16		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C5517		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C5518		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5519		ECST1AX226ZR	.CAPACITOR V	1	
C5520		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5521		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5522-24		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C5525		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C5526		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C5527		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C5528		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5529		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C5530		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5531		ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C5532		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C5533		ECST1AY475Z	T.CAPACITOR CH 16V 4.7U	1	
C5534		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5535,36		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5537,38		ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	2	
C5539		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C5540		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C5541		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C5542		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5543		ECUM1C105ZFM	C.CAPACITOR CH 16V 1U	1	
C5544		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C5547		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C5548		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5549		ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5551		ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C5552		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C5553		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C5554		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5555		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C5556-58		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C5559		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C5560		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C5561		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C5562,63		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5564		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5565,66		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5567		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6001-04		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C6005		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6006,07		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	2	
C6008		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6009		ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C6011		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6013-16		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C6017		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C6018		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C6019		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C6022,23		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	2	
C6024,25		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6026		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6027		ECEV0GA101	E.CAPACITOR CH 4V 100U	1	
C6028		ECUX1H030CCV	C.CAPACITOR CH 50V 3P	1	
C6029		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6030		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6031		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6032		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6033		ECUX1C224ZFV	C.CAPACITOR CH 16V 0.22U	1	
C6034		ECUX1H030CCV	C.CAPACITOR CH 50V 3P	1	
C6035		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6037		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C6039		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6040		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6041		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6045		ECUX1H020CCV	C.CAPACITOR CH 50V 2P	1	
C6050		ECST0JX476Z	.CAPACITOR V	1	
C6051		ECST0JY106Z	E.CAPACITOR 6.3V 10U	1	
C6201		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6203		ECEV1CA100	E.CAPACITOR CH 16V 10U	1	
C6204,05		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	2	
C6206		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6207,08		ECEV1CA100	E.CAPACITOR CH 16V 10U	2	
C6209		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6210		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6211		ECUX1H223ZFV	C.CAPACITOR CH 50V 0.022U	1	
C6213		ECEV05A470	E.CAPACITOR CH 4V 47U	1	
C6214		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C6221		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6230		ECEV0JA220R	E.CAPACITOR 6.3V 22U	1	
C6231		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6401		ECEV0GA471	E.CAPACITOR CH 4V 470U	1	
C6402		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
D3001		MA729	DIODE	1	
D3003		1SS355	DIODE	1	
D3004		MA729	DIODE	1	
D4501		MA133	DIODE	1	
D5001		MA729	DIODE	1	
D5501		1SS355	DIODE	1	
D5502		MA132K	DIODE	1	
D5503		MA728	DIODE	1	
D6001		MA728	DIODE	1	
D6005		1SS355	DIODE	1	
D6010		MA728	DIODE	1	
D6011		MA132WK	DIODE	1	
D6012,13		MA132WA	DIODE	2	
D6014		MA132WK	DIODE	1	
D6015		MA728	DIODE	1	
D6016		MA133	DIODE	1	
D6017		MA132K	DIODE	1	
D6201		1SS355	DIODE	1	
FL3001		VLF1094	FILTER	1	
FL5501		VLF0973	FILTER	1	
FP2001		VJS2848D007	CONNECTOR (FEMALE) 7P	1	
FP2002		VJS2959B018	CONNECTOR (FEMALE) 18P	1	
FP3001		VJS3452C012	CONNECTOR (FEMALE)	1	
FP3003		VJS3452C028	CONNECTOR (FEMALE)	1	
FP4001		VJS2960A009	CONNECTOR (FEMALE) 9P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
FP5001		VJS2959B023	CONNECTOR (FEMALE) 23P	1	
FP6001		VJS2959B018	CONNECTOR (FEMALE) 18P	1	
FP6002		VJS2959B006	CONNECTOR (FEMALE) 6P	1	
FP6003		VJS3452C026	CONNECTOR (FEMALE) 26P	1	
IC2001		TB6518F	IC	1	
IC2002,03		MDC05TR	IC	2	
IC3001		VEFH25D	HIC	1	
IC3003		AN3298NSB	IC	1	
IC3005		BA7071F	IC	1	
IC4501		AN3957FHP	IC	1	
IC5001		AN3353FHP	IC	1	
IC5501		AN2467NFHP	IC	1	
IC5502		TL8850F	IC	1	
IC6001		MN6755486M5X	IC	1	
IC6002		S3510ANFJ	IC	1	
IC6003		UPD6462GS613	IC	1	
IC6004		BU4066BCFV	IC	1	
IC6005		BA6289F	IC	1	
IC6006		TA75W393FU	IC	1	
IC6007		XC62CP3802PR	IC	1	
IC6008		PST9133NR	IC	1	
IC6009		BU4094BCFV	IC	1	
IC6010		BU4066BCFV	IC	1	
IC6401		TA75W393FU	IC	1	
IC6402		UPD4538BG	IC	1	
L3001		ELJPA101KB	COIL 100UH	1	
L3002		ELJPA150KB	COIL 15UH	1	
L3003		VLQ0426J560	COIL 56UH	1	
L3004		ELJPA150KB	COIL 15UH	1	
L3005		ELJFA121JB	COIL	1	
L3006		VLQ0426J3R9	COIL 3.9UH	1	
L3010		VLQ0426J470	COIL 47UH	1	
L3011		ELJFC150JB	COIL 15UH	1	
L3012		ELJFC100JB	COIL 10UH	1	
L3015		VLQ0426J470	COIL 47UH	1	
L3017		VLQ0426J680	COIL 68UH	1	
L3018		ELJPA680KB	COIL H	1	
L3019		ELJPA221KB	COIL 220UH	1	
L3021		VLQ0426J330	COIL 33UH	1	
L3026		ELJPA101KB	COIL 100UH	1	
L3030		VLQ0426J330	COIL 33UH	1	
L4001		ELJPA470KB	COIL 47UH	1	
L4003		ELJPA101KB	COIL 100UH	1	
L4501		ELJPA330KB	COIL 33UH	1	
L5001		ELJPA101KB	COIL 100UH	1	
L5002-04		ELJPA150KB	COIL 15UH	3	
L5005-07		ELJPA101KB	COIL 100UH	3	
L5501		ELJPA470KB	COIL 47UH	1	
L5502		ELJFA680JB	COIL 68UH	1	
L5503		ELJFB471KF	COIL H	1	
L5504		VLQ0426J330	COIL 33UH	1	
L5505		VLQ0426J470	COIL 47UH	1	
L5506-08		ELJPA150KB	COIL 15UH	3	
L5509		VLQ0426J820	COIL 82UH	1	
L5511		ELJFC150JB	COIL 15UH	1	
L6001		ELJFA330JB	COIL	1	
L6002		ELJPA101KB	COIL 100UH	1	
P4001		VJP3172B004	CONNECTOR (MALE) 4P	1	
P6004		VJP3172B005	CONNECTOR (MALE) 5P	1	
P6006		VJP3125D010	CONNECTOR (MALE)	1	
PJ6001		VJP3126B028	CONNECTOR (MALE) 28P	1	
PP3002		VJP2962A010	CONNECTOR (MALE) 10P	1	
Q3001		2SB970X	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q3002		2SD2216	TRANSISTOR	1	
Q3003		2SC4627	TRANSISTOR	1	
Q3004		2SD2216	TRANSISTOR	1	
Q3005		2SB1462	TRANSISTOR	1	
Q3006		2SD2216	TRANSISTOR	1	
Q3008-10		2SC4627	TRANSISTOR	3	
Q3012		2SD2216	TRANSISTOR	1	
Q3014		2SB1462	TRANSISTOR	1	
Q3021		2SB1462	TRANSISTOR	1	
Q3221		2SD2216	TRANSISTOR	1	
Q4001		XP4501	TRANSISTOR-RESISTOR	1	
Q4002		2SD602-R	TRANSISTOR	1	(R)
Q4004		XP4501	TRANSISTOR-RESISTOR	1	
Q4005		2SB1219	TRANSISTOR	1	
Q4007		XP4501	TRANSISTOR-RESISTOR	1	
Q4501,02		2SD1979	TRANSISTOR	2	
Q4503		XP4501	TRANSISTOR-RESISTOR	1	
Q4505,06		XP4601	TRANSISTOR-RESISTOR	2	
Q5001,02		XN4506	TRANSISTOR-TRANSISTOR	2	
Q5005		2SA812	TRANSISTOR	1	
Q5501		2SB1462	TRANSISTOR	1	
Q5502		2SC3938	TRANSISTOR	1	
Q5503		2SB1462	TRANSISTOR	1	
Q5504-07		2SD2216	TRANSISTOR	4	
Q5508		2SC4627	TRANSISTOR	1	
Q5509		2SD2216	TRANSISTOR	1	
Q5510		2SB1462	TRANSISTOR	1	
Q6002		2SD2216	TRANSISTOR	1	
Q6004		2SD2216	TRANSISTOR	1	
Q6005		XP4501	TRANSISTOR-RESISTOR	1	
Q6009		2SD2216	TRANSISTOR	1	
Q6201		2SB1462	TRANSISTOR	1	
QR2002		MRN1111	TRANSISTOR-RESISTOR	1	
QR3001		MRN1102	TRANSISTOR-RESISTOR	1	
QR3002		MRN1104	TRANSISTOR-RESISTOR	1	
QR3004		MRN1102	TRANSISTOR-RESISTOR	1	
QR3009		MRN1103	TRANSISTOR-RESISTOR	1	
QR3013,14		MRN1103	TRANSISTOR-RESISTOR	2	
QR4002		UN9110	TRANSISTOR-RESISTOR	1	
QR4003		MRN2103	TRANSISTOR-RESISTOR	1	
QR4004		XP1215	TRANSISTOR-TRANSISTOR	1	
QR4009		MRN1104	TRANSISTOR-RESISTOR	1	
QR4501		MRN2111	TRANSISTOR-RESISTOR	1	
QR4502		MRN1103	TRANSISTOR-RESISTOR	1	
QR4503-06		MRN1104	TRANSISTOR-RESISTOR	4	
QR5001		MRN1104	TRANSISTOR-RESISTOR	1	
QR5003		MRN1103	TRANSISTOR-RESISTOR	1	
QR5501		MRN1103	TRANSISTOR-RESISTOR	1	
QR6001		UN2130X	TRANSISTOR-RESISTOR	1	
QR6002		MRN1103	TRANSISTOR-RESISTOR	1	
QR6003		MRN2103	TRANSISTOR-RESISTOR	1	
QR6004		XP4115	TRANSISTOR-RESISTOR	1	
QR6006		MRN2104	TRANSISTOR-RESISTOR	1	
QR6007,08		MRN1102	TRANSISTOR-RESISTOR	2	
QR6009		XP1211	TRANSISTOR-RESISTOR	1	
QR6010		XP1213	TRANSISTOR-RESISTOR	1	
QR6012		MRN1104	TRANSISTOR-RESISTOR	1	
QR6014		UN921D	TRANSISTOR-RESISTOR	1	
QR6015		MRN1111	TRANSISTOR-RESISTOR	1	
QR6016,17		MRN1103	TRANSISTOR-RESISTOR	2	
QR6018		UN921E	TRANSISTOR-RESISTOR	1	
QR6019		MRN1111	TRANSISTOR-RESISTOR	1	
R2001		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2002		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R2003		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2004		ERJ2GEJ154	M.RESISTOR CH 2W 150K	1	
R2005		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2006		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R2007		ERJ8GEYJR47	M.RESISTOR CH 1/8W 0.47	1	
R2008		ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2009		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2010		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2012		ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R2015		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2016		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2017		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2018		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R2019,20		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	2	
R2021		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R2022		ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2040-42		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	3	
R3001,02		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R3003,04		ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R3005		ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R3006		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3009		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3010		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3011		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3012		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3013		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3014,15		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3016		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R3017		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R3019		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R3020		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R3021		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3022		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3023		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3024		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3025		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3026		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R3027		VRE0082A271	.RESISTOR W	1	
R3030		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R3031		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3033		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3034		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3042		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3043		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3044		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3045		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3046		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3048		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R3049		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3051		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R3052		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R3053		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3055		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3056		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3058		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3059		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3060,61		VRE0071E680	.RESISTOR W	2	
R3062		VRE0071E560	.RESISTOR W	1	
R3064		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3067		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3070		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3071		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3072		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3073		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3074		VRE0082A102	M.RESISTOR CH 1/10W 1K	1	
R3075		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3076		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3077		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3078		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3080		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3081		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3084		ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	1	
R3089		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3090		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3091		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3092		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3097		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R3098		ERJ3GEYJ106	M.RESISTOR CH 1/16W 10M	1	
R3107		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R3113		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3131		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3162		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3225		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3237		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3244		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3245		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R3246		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R3270		ERJ2GEJ821	M.RESISTOR CH 2W 820	1	
R4001		ERJ2GEJ100	M.RESISTOR CH 2W 10	1	
R4002		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R4003		VRE0082A271	.RESISTOR W	1	
R4004		ERJ2GEJ334	M.RESISTOR CH 2W 330K	1	
R4005		VRE0082A682	M.RESISTOR CH 1/10W 6.8K	1	
R4006		ERJ2GEJ823	M.RESISTOR CH 2W 82K	1	
R4007		ERJ2GEJ563	M.RESISTOR CH 2W 56K	1	
R4008		VRE0071E133	M.RESISTOR CH 1/10W 13K	1	
R4009		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R4012		ERJ2GEJ391	M.RESISTOR CH 2W 390	1	
R4015,16		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	2	
R4018		ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R4019		ERJ2GEJ184	M.RESISTOR CH 2W 180K	1	
R4020		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R4021		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R4022		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R4023		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R4024		ERJ2GEJ680	M.RESISTOR CH 2W 68	1	
R4025		ERJ2GEJ334	M.RESISTOR CH 2W 330K	1	
R4026		ERJ2GEJ684	M.RESISTOR CH 2W 680K	1	
R4027		ERJ2GEJ334	M.RESISTOR CH 2W 330K	1	
R4028		ERJ2GEJ684	M.RESISTOR CH 2W 680K	1	
R4029,30		ERJ2GEJ334	M.RESISTOR CH 2W 330K	2	
R4501		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R4502,03		ERJ2GEJ511	M.RESISTOR CH 2W 510	2	
R4504,05		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	2	
R4506		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R4510,11		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	2	
R4512,13		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R4516		VRE0082A153	M.RESISTOR CH 1/10W 15K	1	
R4517		VRE0082A123	M.RESISTOR CH 1/10W 1.2K	1	
R4518		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R4519		ERJ2GEJ821	M.RESISTOR CH 2W 820	1	
R4520		ERJ2GEJ394	M.RESISTOR CH 2W 390K	1	
R4521		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R4524		ERJ2GEJ124	M.RESISTOR CH 2W 120K	1	
R4525		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R4526,27		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	2	
R4528,29		ERJ2GEJ561	M.RESISTOR CH 2W 560	2	
R4530,31		ERJ2GEJ124	M.RESISTOR CH 2W 120K	2	
R4536		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R4537		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R4538		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R4541		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R4542		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R4543,44		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	2	
R4545,46		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R4553,54		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	2	
R4567,68		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R4569		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R4570		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	1	
R4571		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R4575,76		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	2	
R4577,78		ERJ2GEJ681	M.RESISTOR CH 2W 680	2	
R4579,80		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R4583		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R5001		VRE0071E113	.RESISTOR W	1	
R5002,03		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R5004,05		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	2	
R5006		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5007		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R5008		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5009		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R5010		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5011		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5012		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5013		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R5014		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R5016		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R5501		ERJ2GEJ273	M.RESISTOR CH 2W 27K	1	
R5502		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R5503		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R5504		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R5505		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R5506		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R5507		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5508,09		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	2	
R5510		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5511		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R5512		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R5513		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R5514		ERJ3GEYJ335	M.RESISTOR CH 1/16W 3.3M	1	
R5515		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R5516		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R5518,19		ERJ2GEJ681	M.RESISTOR CH 2W 680	2	
R5520		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R5521		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R5522		ERJ2GEJ471	M.RESISTOR CH 2W 470	1	
R5523		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R5524		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R5525		ERJ2GEJ561	M.RESISTOR CH 2W 560	1	
R5526		VRE0082A222	.RESISTOR W	1	
R5527		VRE0082A512	.RESISTOR W	1	
R5529		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R5530		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R5531		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5532		ERJ2GEJ563	M.RESISTOR CH 2W 56K	1	
R5533		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R5534		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R5535,36		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	2	
R5539		ERJ2GEJ101	M.RESISTOR CH 2W 100	1	
R5540		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5541,42		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R5543		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R5544		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R5545-47		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R5548		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R5549		ERJ2GEJ821	M.RESISTOR CH 2W 820	1	
R5550,51		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R5552		ERJ2GEJ391	M.RESISTOR CH 2W 390	1	
R5553		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R5554,55		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R5556,57		ERJ2GEJ103	M.RESISTOR CH 2W 10K	2	
R5563		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R5564		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R5565		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	1	
R5599		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6001		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6002		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R6003		ERJ2GEJ274	M.RESISTOR CH 2W 270K	1	
R6004		ERJ2GEJ273	M.RESISTOR CH 2W 27K	1	
R6006-08		ERJ2GEJ102	M.RESISTOR CH 2W 1K	3	
R6009		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6010		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6011		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6012		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6013		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6014		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R6015		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6016		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R6017		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6018		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R6019		ERJ2GEJ224	M.RESISTOR CH 2W 220K	1	
R6020		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R6021		ERJ8GEYJ120	M.RESISTOR CH 1/8W 12	1	
R6022		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R6023		ERJ2GEJ153	M.RESISTOR CH 2W 15K	1	
R6024		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6025		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6026		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6027,28		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	2	
R6029		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R6030		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6031		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6032,33		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R6034		ERJ2GEJ101	M.RESISTOR CH 2W 100	1	
R6035		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R6036		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R6037		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6038		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6039		ERJ8GEYJ2R2	M.RESISTOR CH 1/8W 2.2	1	
R6041		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6042		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R6043		ERJ2GEJ224	M.RESISTOR CH 2W 220K	1	
R6044		VRE0071E223	M.RESISTOR 22K	1	
R6045		VRE0071E333	M.RESISTOR 33K	1	
R6046		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6047		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6048		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6049		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6051		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6052,53		ERJ2GEJ393	M.RESISTOR CH 2W 39K	2	
R6055		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6058		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6060		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6061		ERJ2GEJ223	M.RESISTOR CH 2W 22K	1	
R6062,63		ERJ2GEJ102	M.RESISTOR CH 2W 1K	2	
R6064		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R6066		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6068		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6070		ERJ2GEJ101	M.RESISTOR CH 2W 100	1	
R6071,72		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	2	
R6073		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R6074		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6075		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R6076		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R6077		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6078		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6079		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6080		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6081		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6084		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6086		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6087		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R6088		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6091		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6093		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6101		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6104		ERJ2GE0R00	M.RESISTOR CH 2W 0	1	
R6105		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6111		ERJ2GEJ563	M.RESISTOR CH 2W 56K	1	
R6112		ERJ2GEJ333	M.RESISTOR CH 2W 33K	1	
R6113		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6120		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6121		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R6130		ERJ2GEJ821	M.RESISTOR CH 2W 820	1	
R6131		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6134		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6135		ERJ2GEJ121	M.RESISTOR CH 2W 120	1	
R6138		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6139		ERJ2GEJ473	M.RESISTOR CH 2W 47K	1	
R6141		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6144		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6145		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R6150		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R6151		ERJ2GEJ334	M.RESISTOR CH 2W 330K	1	
R6152		ERJ2GEJ124	M.RESISTOR CH 2W 120K	1	
R6153		ERJ2GEJ474	M.RESISTOR CH 2W 470K	1	
R6154		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6155		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6168		ERJ2GEJ683	M.RESISTOR CH 2W 68K	1	
R6169		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6182,83		ERJ2GEJ683	M.RESISTOR CH 2W 68K	2	
R6185		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R6187		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6203		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6205		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6206,07		ERJ2GEJ104	M.RESISTOR CH 2W 100K	2	
R6208		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6209		ERJ2GEJ181X	M.RESISTOR CH 2W 180	1	
R6210,11		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	2	
R6212		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R6213		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R6214		ERJ2GEJ104	M.RESISTOR CH 2W 100K	1	
R6231		ERJ8GEYJ2R2	M.RESISTOR CH 1/8W 2.2	1	
R6232		ERJ2GEJ184	M.RESISTOR CH 2W 180K	1	
R6233-35		ERJ2GEJ223	M.RESISTOR CH 2W 22K	3	
R6401		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R6402		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6403		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6404		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R6405,06		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	2	
RA6001		EXBV8V102J	RESISTOR-RESISTOR	1	
RA6003-05		EXBV8V102J	RESISTOR-RESISTOR	3	
RA6006,07		EXBV8V104J	RESISTOR-RESISTOR	2	
RA6008		EXBV8V103J	V.RESISTOR	1	
RA6010		EXBV8V102J	RESISTOR-RESISTOR	1	
T4001		EIQ6QB008T	TRANSFORMER	1	
VR3004,05		EVM7JSX10B53	V.RESISTOR W	2	
VR3006		EVM7JSX10B14	V.RESISTOR W	1	
VR3007		EVM7JSX10B54	V.RESISTOR W	1	
VR4501		EVM7JSX10B54	V.RESISTOR W	1	
VR4509		EVM7JSX10B54	V.RESISTOR W	1	
VR5502		EVM7JSX10B23	V.RESISTOR W	1	
VR5503		EVM7JSX10B53	V.RESISTOR W	1	
X5501		VSX0419	CRYSTAL OSCILLATOR	1	
X6001		VSX0654	CRYSTAL OSCILLATOR	1	
X6002,03		VSX0601	CRYSTAL OSCILLATOR	2	
			MISCELLANEOUS		
		VMZ2377	BARRIER	1	
		VSC4202	SHIELD COVER (BOTTOM)	1	
	■	VEP00X72A	VTR SUB 1 C.B.A.		(RTL)
C6050		ECST0JX476Z	.CAPACITOR V	1	
	■	VEP06B40A	VTR SUB 2 C.B.A.		(RTL)
C6401		ECEV0GA471	E.CAPACITOR CH 4V 470U	1	
C6402		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
IC6401		TA75W393FU	IC	1	
IC6402		UPD4538BG-T2	IC	1	
R6401		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R6402		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6403		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6404		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R6405,06		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	2	
	■	VEP01638A	POWER C.B.A.		(RTL)
C1001		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1002,03		ECUM1A335KBP	C.CAPACITOR CH 10V 3.3U	2	
C1004		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1005		ECST1AY106Z	.CAPACITOR V	1	
C1006		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1008		ECUM1A335KBP	C.CAPACITOR CH 10V 3.3U	1	
C1009		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1010		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1011		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1012		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C1013		ECUM1A335KBP	C.CAPACITOR CH 10V 3.3U	1	
C1014		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C1015		ECEV1CA470P	E.CAPACITOR CH 16V 47U	1	
C1017		ECUM1E105ZFM	C.CAPACITOR CH 25V 1U	1	
C1019		ECUM1E474ZFM	C.CAPACITOR CH 25V 0.47U	1	
C1020		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1022		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1024		ECUM1C155ZFN	C.CAPACITOR CH 16V 1.5U	1	
C1025		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C1026		ECEV1HA010	E.CAPACITOR 50V 1U	1	
C1027		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C1028		ECEV1HAR47	E.CAPACITOR 50V 0.47U	1	
C1029		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1030		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1031		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1032		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1033-35		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	3	
C1036		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1037		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1042		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1043		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1046		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1051		ECUM1C474ZFN	C.CAPACITOR CH 16V 0.47U	1	
C1054		ECEV0GA470	E.CAPACITOR CH 4V 47U	1	
C1057		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1058		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1064		ECEV1CG100	E.CAPACITOR V	1	
C1066		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1067		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1071		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C1073		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1080,81		ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	2	
C1101		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C1103		ECEV1CA220	E.CAPACITOR CH 16V 22U	1	
C1104		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1105		ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C1110		ECUM1A335KBP	C.CAPACITOR CH 10V 3.3U	1	
C1112		ECUM1A335KBP	C.CAPACITOR CH 10V 3.3U	1	
C1403		ECUM1A335KBP	C.CAPACITOR CH 10V 3.3U	1	
C1404		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1405		ECST1AY106Z	.CAPACITOR V	1	
C1406		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1407		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C1408		ECUM1A335KBP	C.CAPACITOR CH 10V 3.3U	1	
C1409		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1410		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1411		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1425		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C1426		ECEV1HA010	E.CAPACITOR 50V 1U	1	
C1428		ECEV1HAR47	E.CAPACITOR 50V 0.47U	1	
C1429		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1430		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1431		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1432		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1433,34		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C1471		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C1473		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C1480,81		ECUX1C473KBV	C.CAPACITOR CH 16V 0.047U	2	
D1002		EC20QS06	DIODE	1	
D1004		EC10QS04	DIODE	1	
D1005		SB05-05CP	DIODE	1	
D1006,07		MA142K	DIODE	2	
D1008		MA728	DIODE	1	
D1009		RD7.5M	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D1015		EC15QS04	DIODE	1	
D1020		MA728	DIODE	1	
D1101-03		MA8130-M	DIODE	3	
D1402		EC20QS06	DIODE	1	
D1404		EC10QS04	DIODE	1	
D1415		EC15QS04	DIODE	1	
D1501		EC20QS03L	DIODE	1	
FP1001		VJS3320D016	CONNECTOR (FEMALE)	1	
IC1001		BA9706K	IC	1	
IC1401		BA9706K	IC	1	
J1001		VEK6535	JACK	1	
J1501		VJJ0368	JACK	1	
L1001		ELL04T509R	COIL H	1	
L1002		ELL04T045R	COIL H	1	
L1003		ELL04T502R	TRANSFORMER	1	
L1007		ELL04T027R	TRANSFORMER	1	
L1008		ELL04T502R	TRANSFORMER	1	
L1009		ELJPA100KB	COIL 10UH	1	
L1010,11		ELJPA101KB	COIL 100UH	2	
L1012		ELJPA100KB	COIL 10UH	1	
L1014		ELJPA100KB	COIL 10UH	1	
L1016		ELJPA470KB	COIL 47UH	1	
L1062		ELL04T009R	TRANSFORMER	1	
L1065		VLQ0319M4R7	COIL H	1	
L1102,03		VLP0134	COIL	2	
L1110		ELC5SB3R9M	COIL H	1	
L1402		ELL04T027R	TRANSFORMER	1	
L1403		ELL04T502R	TRANSFORMER	1	
L1404		ELJPA100KB	COIL 10UH	1	
L1406		ELJPA470KB	COIL 47UH	1	
L1407		ELL04T045R	COIL H	1	
L1408		ELL04T502R	TRANSFORMER	1	
L1415		ELJPA150KB	COIL 15UH	1	
PS1001		VJS2961A028	CONNECTOR (FEMALE) 28P	1	
Q1001		2SA1731-R	TRANSISTOR	1	
Q1002,03		2SB798	TRANSISTOR	2	
Q1004		2SD2210	TRANSISTOR	1	
Q1005		2SB1073	TRANSISTOR	1	
Q1009		2SD1819	TRANSISTOR	1	
Q1062		MPL1	TRANSISTOR	1	
Q1401		2SA1731-R	TRANSISTOR	1	
Q1403		2SB798	TRANSISTOR	1	
QR1004		UN5214	TRANSISTOR-RESISTOR	1	
QR1005		UN5114	TRANSISTOR-RESISTOR	1	
QR1006		UN2130X	TRANSISTOR-RESISTOR	1	
QR1020		UN5113	TRANSISTOR-RESISTOR	1	
QR1061		UN5115	TRANSISTOR-RESISTOR	1	
R1001		VRE0067G822	M.RESISTOR 8.2K	1	
R1002		VRE0067G272	M.RESISTOR 2.7K	1	
R1003		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1004		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R1005		VRE0067G562	M.RESISTOR 5.6K	1	
R1006		VRE0067G272	M.RESISTOR 2.7K	1	
R1007		ERJ8GEYJ330	M.RESISTOR CH 1/8W 33	1	
R1008		VRE0067G103	M.RESISTOR 10K	1	
R1009		VRE0067G152	M.RESISTOR 1.5K	1	
R1012		VRE0067G20C	M.RESISTOR CH 1/10W	1	
R1013		VRE0067G393	M.RESISTOR 39K	1	
R1014,15		VRE0067G182	M.RESISTOR 1.8K	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R1016		VRE0034E15	M.RESISTOR W	1	
R1017		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1018		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1019		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1020		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1021		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R1022		ERJ3GEYJ150	M.RESISTOR CH 1/16W 15	1	
R1023		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R1024		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1025		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1026		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1027		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1033		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1035		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1038		VRE0071E560	.RESISTOR W	1	
R1039		VRE0071E361	.RESISTOR W	1	
R1040		VRE0071E151	M.RESISTOR W	1	
R1051		VRE0034E243	M.RESISTOR CH 1/10W 2.4K	1	
R1052		VRE0034E393	M.RESISTOR CH 1/10W 39K	1	
R1057		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R1060		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R1061		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1062		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R1063		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1065		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R1071		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1072		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1073		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R1077		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1083		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1085		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R1086		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1115		VSF0092	F.RESISTOR	1	<!>
R1207		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R1301		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R1401		VRE0067G822	M.RESISTOR 8.2K	1	
R1402		VRE0067G272	M.RESISTOR 2.7K	1	
R1405		VRE0067G562	M.RESISTOR 5.6K	1	
R1406		VRE0067G272	M.RESISTOR 2.7K	1	
R1414,15		VRE0067G182	M.RESISTOR 1.8K	2	
R1417		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1418		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1419		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1420		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1421		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R1422		ERJ3GEYJ150	M.RESISTOR CH 1/16W 15	1	
R1430		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1438		VRE0071E111	.RESISTOR W	1	
R1439		VRE0071E361	.RESISTOR W	1	
R1471		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1472		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1473		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R1485,86		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
SW1301		ESE122	SWITCH	1	
T1001		ELL04T050R	TRANSFORMER	1	
T1002		VTP0357	TRANSFORMER	1	
T1402		VTP0357	TRANSFORMER	1	
21001		VL2020/1HF	LITHIUM BATTERY	1	
			MISCELLANEOUS		
		VSC4192	POWER CHIELD COVER	1	
		VSC4193	POWER CHIELD COVER	1	
	■	VEP01764A	POWER SUB C.B.A.		(RTL)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1112		ECUM1A335KBP	C.CAPACITOR CH 10V 3.3U	1	
L1110		ELC5SB3R9M	COIL	1	
	■	VEK7462	AV JACK C.B.A.		(RTL)
C3601		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	1	
C3602		ECUM1H473KBN	C.CAPACITOR CH 50V 0.047U	1	
C3603,04		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	2	
C3605,06		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
D3602		MA143	DIODE	1	
L3603		VLQ0584	COIL	1	
L3604		VLP0171	INDUCTOR	1	
L3608		VLQ0584	COIL	1	
PS3601		VJS2961A010	CONNECTOR (FEMALE) 10P	1	
R3601,02		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	2	
			MISCELLANEOUS		
JK3601		VEJ1308	AV JACK PLATE	1	
		VSC3689	EARTH PLATE	1	
	■	VEP00W14A	EJECT C.B.A.		(RTL)
S6703		VSP0584	SWITCH	1	
	■	VEP00V80A	S/S C.B.A.		(RTL)
S6702		ESE103119	SWITCH	1	
	■	VEK7464	S-JACK C.B.A.		
C3650		ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
D3650		MA143	DIODE	1	
D3651,52		MA8039-L	DIODE	2	
			MISCELLANEOUS		
J1501		VEJ1188	S-JACK PLATE	1	

INTERNAL REFERENCE CODES

NOTE: This chart is only for internal reference.
Do not order any parts according to these codes.

P.C.B.	FILM CODE
AWT SENSOR	HOKU00-23271
CAMERA MAIN	HOKU00-23270
CCD FLEXIBLE CARD	HOKU00-22123
EVF	HOKU00-28086
POWER	HOKU00-01638
VTR MAIN	HOKU00-03B80
MIC	HOKU00-04517
AV JACK	HOKU00-00V70
EJECT	HOKU00-00W14
S/S	HOKU00-00V80
S-JACK	HOKU00-00V71
POWER SUB	HOKU00-01764
VTR SUB 1	HOKU00-00X72
VTR SUB 2	HOKU00-06B40
CAPSTAN SMALL	HOKU00-06B44

G-Tape deck DM 4/0

DM 4/2
DMP 4/0
DMP 4/2
DMS 4/2

Service
Service
Service

Service Manual

VHS

PAL/SECAM

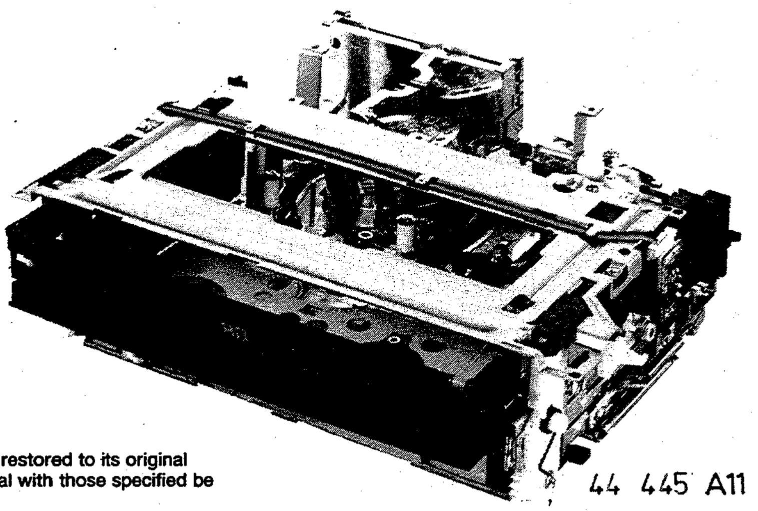
DM 4/0 is a G–tape deck (DM=Deck Mechanism) with four video heads on the head disc, suitable for "perfect stil". Futhermore this tape–deck is suitable for "long play" and meets the half loading requirements.

DM 4/2 is a G–tape deck (DM=Deck Mechanism) with four video and two audio heads on the head disc, suitable for "perfect stil" and FM audio. Futhermore this tape–deck is suitable for "long play" and meets the half loading requirements.

DMP 4/0 is identical to the DM 4/0, however this tape–deck has been equiped with a different scanning unit.

DMP 4/2 is identical to the DM 4/2, however this tape–deck has been equiped with a different scanning unit.

DMS 4/2 is a G–tape deck (DMS=Deck mechanism S–VHS) with four video and two audio heads on the head disc, suitable for "perfect stil", FM audio and to record or play back video signals via the S–VHS system. Futhermore this tape–deck is suitable for "long play" and meets the half loading requirements.



44 445 A11

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

DocumentationTechnique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Subject to modification
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Published by
Service Consumer Electronics

CS 23 560 GB

INTRODUCTION

This Service Manual describes the mechanical adjustment procedures needed for properly adjusting the **G–Tape Deck**. Mechanical adjustment procedures needed for video recorders incorporating the G–Tape Deck are described **in chapter 2** " Mechanical Adjustment Procedures".

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Service Information

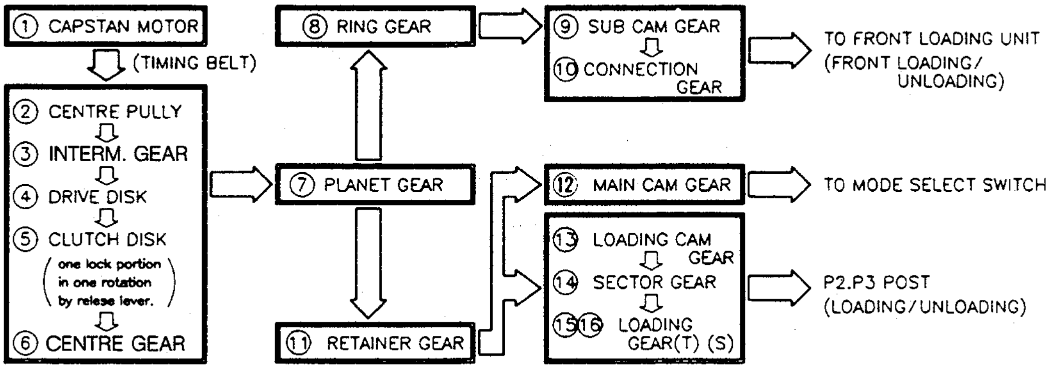
* VR86-16
* Service information included in this ducumentation.

1. SERVICE INFORMATION

1.1 The phase of G-tape deck

The capstan motor of the G–tape deck works as a loading (threading) motor and a front loading motor in a conventional tapedeck. This capstan motor controls all mechanical components of the G-tape deck. Therefore the phase of the mechanical condition becomes very important. Pay much attention to the phase of the tape deck, when reinstall any components of the tape deck, refer to chapter 4.

Adjustment procedures, should be performed. even after installation of the cassette compartment.
The mechanical movement from the drive source (capstan motor) to all other main mechanical compontents is shown in following flow chart, see Fig. 1-1.
Fig 1-2 shows the loading movement direction.


① CAPSTAN MOTOR
(TIMING BELT)
② CENTRE PULLY
③ INTERM. GEAR
④ DRIVE DISK
⑤ CLUTCH DISK
one lock portion in one rotation by relese lever.
⑥ CENTRE GEAR
⑧ RING GEAR
⑦ PLANET GEAR
⑪ RETAINER GEAR
⑨ SUB CAM GEAR
⑩ CONNECTION GEAR
⑫ MAIN CAM GEAR
⑬ LOADING CAM GEAR
⑭ SECTOR GEAR
⑮⑯ LOADING GEAR(T) (S)
TO FRONT LOADING UNIT (FRONT LOADING/ UNLOADING)
TO MODE SELECT SWITCH
P2.P3 POST (LOADING/UNLOADING)

※ Switching of Loading and Front Loading is performed by Detent Arm.

Fig. 1-1

"➡" marks show Mechanism movement of Loading direction.

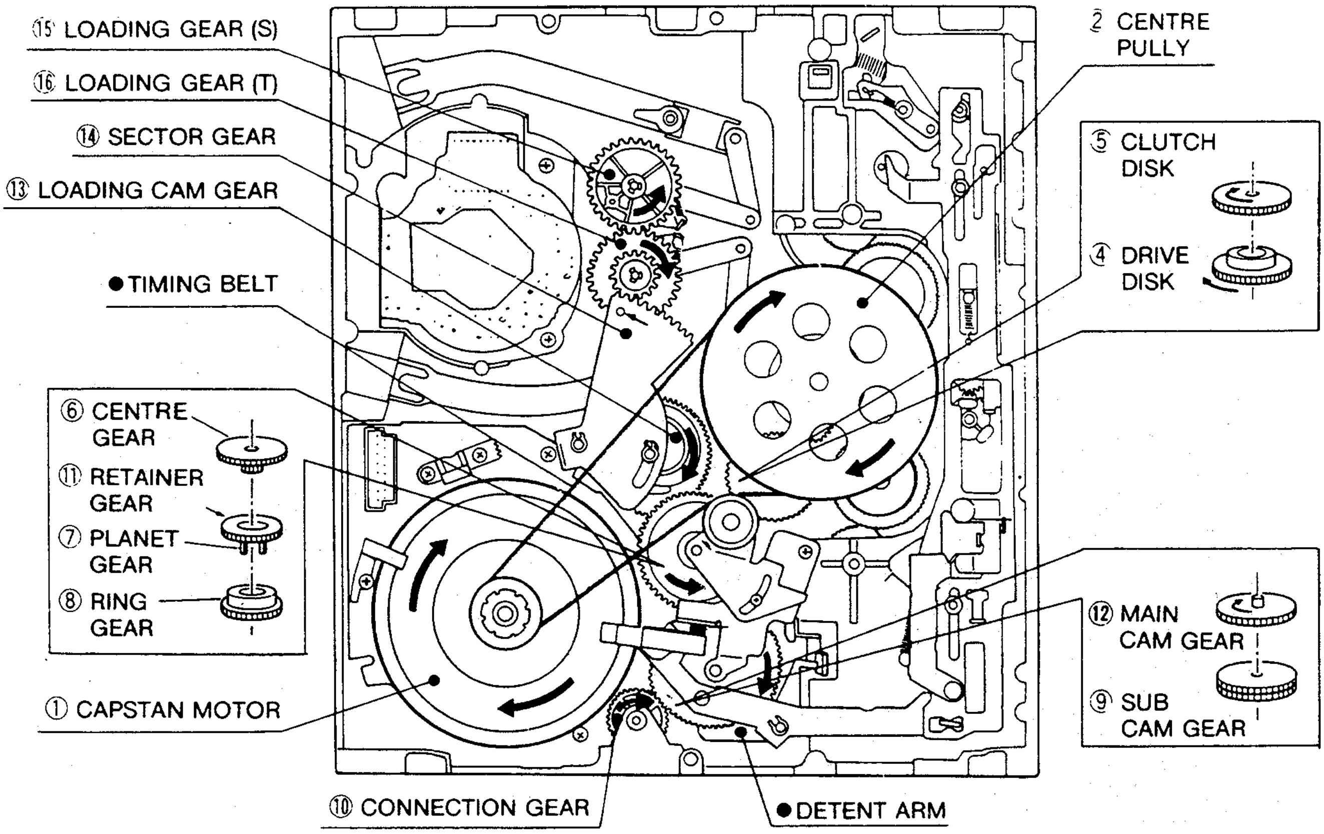

⑮ LOADING GEAR (S)
⑯ LOADING GEAR (T)
⑭ SECTOR GEAR
⑬ LOADING CAM GEAR
●TIMING BELT
⑥ CENTRE GEAR
⑪ RETAINER GEAR
⑦ PLANET GEAR
⑧ RING GEAR
① CAPSTAN MOTOR
⑩ CONNECTION GEAR
●DETENT ARM
② CENTRE PULLY
⑤ CLUTCH DISK
④ DRIVE DISK
⑫ MAIN CAM GEAR
⑨ SUB CAM GEAR

Fig. 1-2

1.2 How to eject manually

When the electrical circuit is defective and the unloading and front unloading section don't work properly, it is possible to eject manually as follows.

- Disconnect the mains supply.
- Release change lever pos. no 122(2) by pushing it to arrow mark direction as shown in Fig. 1-3.
- Slowly turn the capstan motor counter clockwise until the clutch disk is locked.
(Clutch Disk is locked once in one rotation).
- Release the change lever again when the clutch disk is locked.
- Repeat points (2) and (3) until the cassette is ejected.

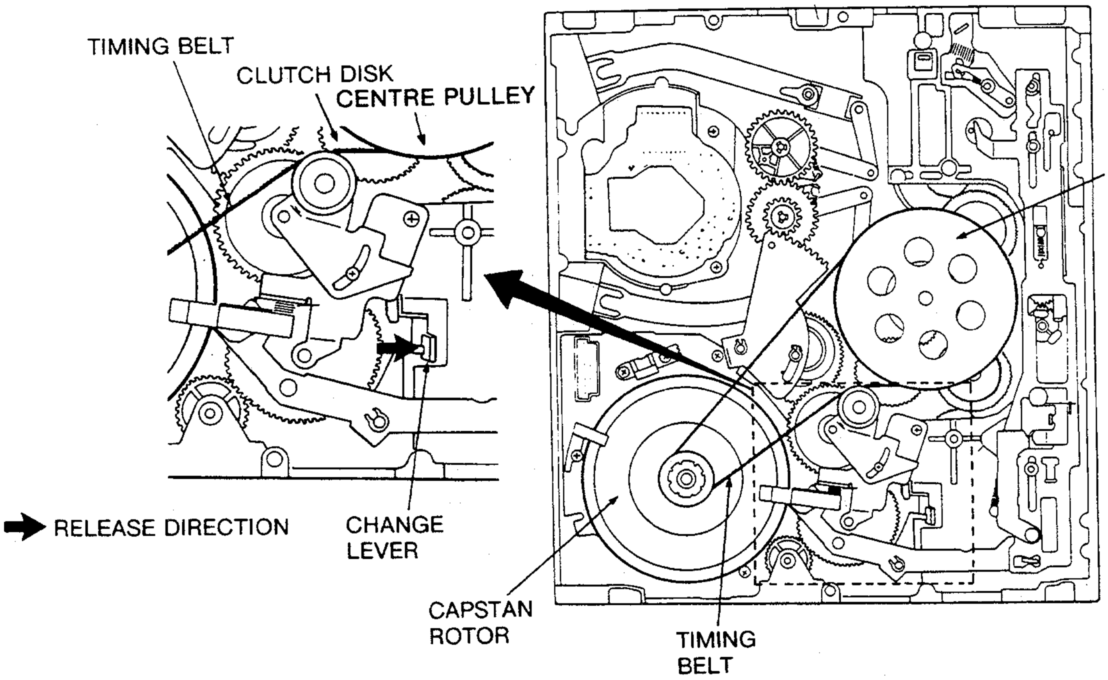

TIMING BELT
CLUTCH DISK
CENTRE PULLEY
CENTRE PULLEY
RELEASE DIRECTION
CHANGE LEVER
CAPSTAN ROTOR
TIMING BELT

Fig. 1-3

1.3 How to place the Cassette compartment in the down condition without a cassette.

In the Cassette compartment up condition, the VCR can not be operated. To place the Cassette compartment in the down position without a cassette use the following procedure.

Method 1

- Remove the top case and front panel then, connect AC plug.
- First insert a ruler against the bottom right side of the cassette up unit so it lies over the cassette opener to keep it in the down condition as shown in Fig. 1-4.
- With the ruler in place, extend the left middle finger outside the cassette up unit to cover the hole in the cassette compartment top plate as shown in Fig. 1-4. while pressing the cassette holder unit into the loading condition with the left thumb.
- Hold the ruler and middle finger firmly in position until the cassette holder unit clears the locking tab of the side plate (L) and passes beyond the cassette reject slot of the side plate (R).
After clearing the locking tab and the cassette reject slot, the cassette holder unit will move into the down position by itself.

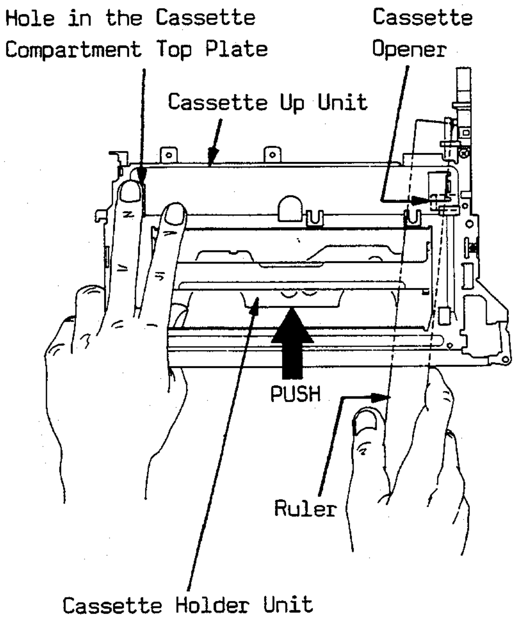

Hole in the Cassette Compartment Top Plate
Cassette Opener
Cassette Up Unit
PUSH
Ruler
Cassette Holder Unit

Fig. 1-4

Method 2

- Unplug the connector P1508 and remove the cassette compartment top plate by removing 2 screws (A) and screw (B), see Fig. 1-5.
- Remove the cassette holder unit by pushing wiper gear (R) pos. no. 232(3) unit until the 5 pins of cassette holder unit clear the slots of the side plates (L) and (R) as shown in Fig. 1-5.
- Connect AC plug.
- Push wiper gear (L) pos. no. 231(3) unit to place the unit in the cassette down condition (no cassette) as shown in Fig. 1-5.

Note:
If the cassette mechanism can not be placed in the casette-up condition when the EJECT button is pressed. First place finger through the hole in the left side of the chassis frame, as shown in box, Fig. 1-5, and push the wiper gear (L) unit up. Now push the EJECT button to EJECT.

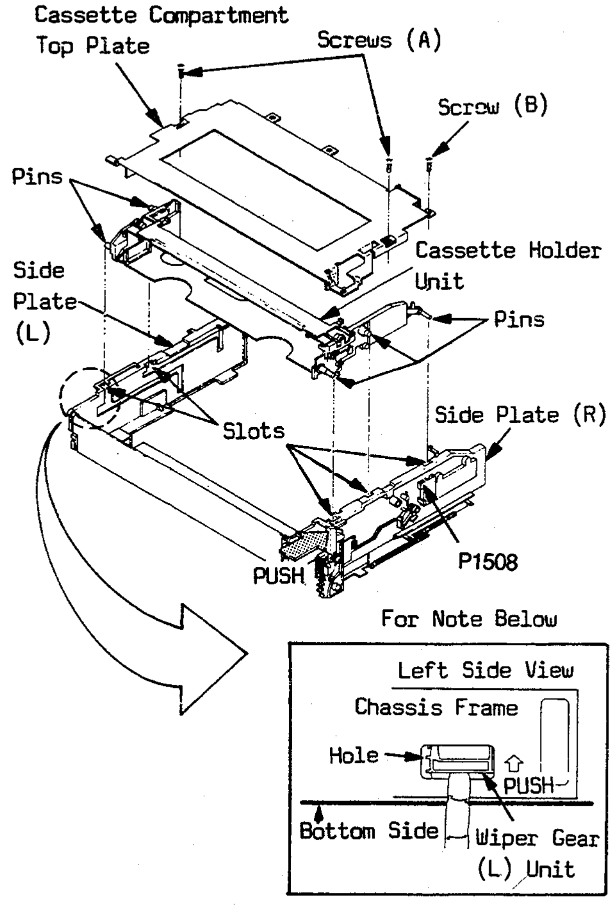

Cassette Compartment Top Plate
Screws (A)
Screw (B)
Pins
Side Plate (L)
Cassette Holder Unit
Pins
Slots
Side Plate (R)
PUSH
P1508
For Note Below
Left Side View
Chassis Frame
Hole
PUSH
Bottom Side
Wiper Gear (L) Unit

Fig. 1-5

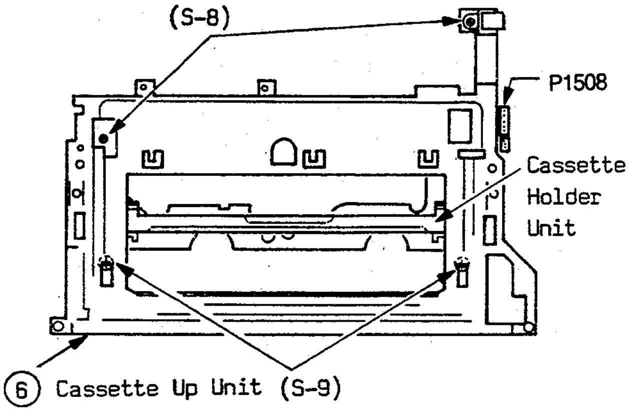

(S-8)
P1508
Cassette Holder Unit
⑥ Cassette Up Unit (S-9)

Fig. 1-6

1.4 How to remove the cassette compartiment

- Disconnect the mains supply
- Disconnect the plug from P1508
- Remove screws (S-8), see Fig. 1-6.
- Turn the capstan motor clockwise (located on the bottom side) until it will not turn any more.
- Now screws (S-9) can be removed. The complete cassette compartment can now be taken out.

1.5 Movement of mechanism without cassette compartment

Since the capstan motor works as a loading (threading) motor and front loading motor, phase relationship between cassette compartment and mechanism is important. Playback and FF/REW can not be performed after taking out the cassette compartment. However, checking the mechanical movement without cassette, it is possible as follows:

- Disconnect the mains supply.
- Take out the 5 pin flex cable from P1508 on the cassette compartment and remove the cassette compartment from chassis, see chapter 1.4.
- Turn the capstan motor clockwise until the clutch disk is locked. (Clutch disk is locked once in one rotation).
- Release the change lever again when the clutch disk is locked.
- Repeating above items will show the several stop positions of the mechanism from EJECT to PLAYBACK/REC, see also Fig. 1–7.
- Start from EJECT

1. Starting point for loading (threading).
2. Half loading position.
3. Main brake on (µC on deck control monitors the safety devices in the mechanism).
4. Soft brake on (WIND, REW position).
5. Pressure roller positioned.
6. Pressure roller fully down.
7. Pressure roller pressed to capstan shaft (PLAY, REC, CUE mode).

Note:
- Don't add too large torque to any gears to prevent breaking it
- When reinstalling the cassette compartment, refer to section 4.10. "Reinstallation of cassette compartment."
- It is not possible to opereate the mechanism from EJECT position.

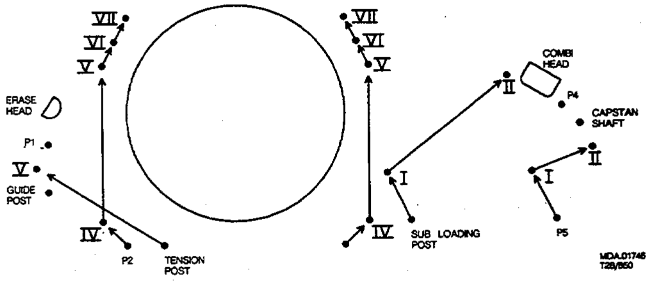

VII
VI
V
ERASE HEAD
P1
V
GUIDE POST
IV
P2
TENSION POST
VII
VI
V
IV
I
SUB LOADING POST
II
COMBI HEAD
P4
CAPSTAN SHAFT
II
I
P5
MDA.01746
T28/850

Fig. 1-7

1.6 Replacement of the scanning unit

Note:
Work with extreme care when removing or replacing scanning unit pos. no. 6(1), since there is very little clearance between scanning unit and chassis.
Do not touch the video head with bare hands during servicing.
Use nylon gloves (5322 395 94022).

- Place the set left side down.
- Remove grounding plate pos. no. 5(1) and the head amplifier, see Fig.1-8.
- Remove screws (B), see Fig. 1-9.
- Lift the scanning unit out of the chassis, and disconnect the plug from P1502.

Note:
When reinstalling the new scanning unit, fit the new scanning unit to the chassis by turning it clockwise.
Confirm after reinstalling the scanning unit the "Gap position" adjustment, see the relevant service Manual.

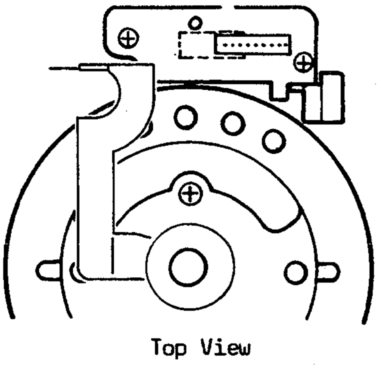


Fig. 1-8

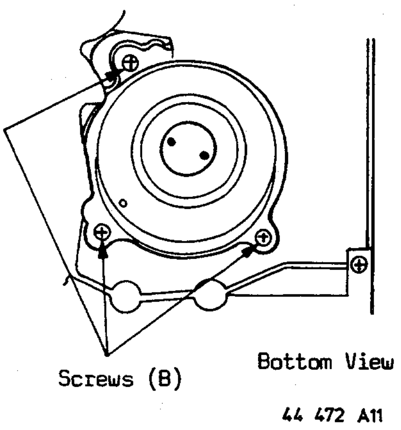


Fig. 1-9

1.7 Replacement of scanning unit (DMS 4/2)

Work with extreme care when removing or replacing the scanning unit. Do not touch the video heads during servicing.

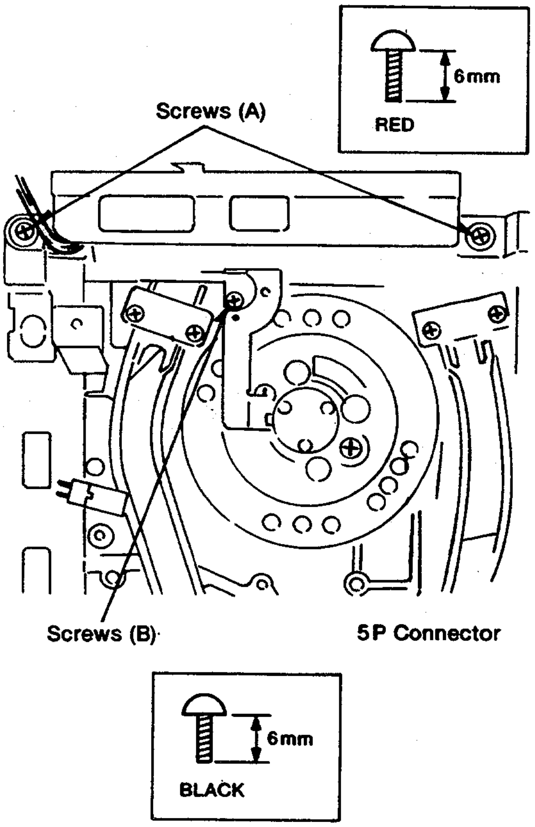


Fig. 1-10

- Remove screws (A) to take out the head amp, see Fig. 1-10.
- Remove screw (B) to take out the earth holder.
- Disconnect the 5P connector on the cylinder drive CBA.
- Remove the 3 screws (C) to take out the scanning unit (with the cylinder drive CBA) see Fig. 1-11.

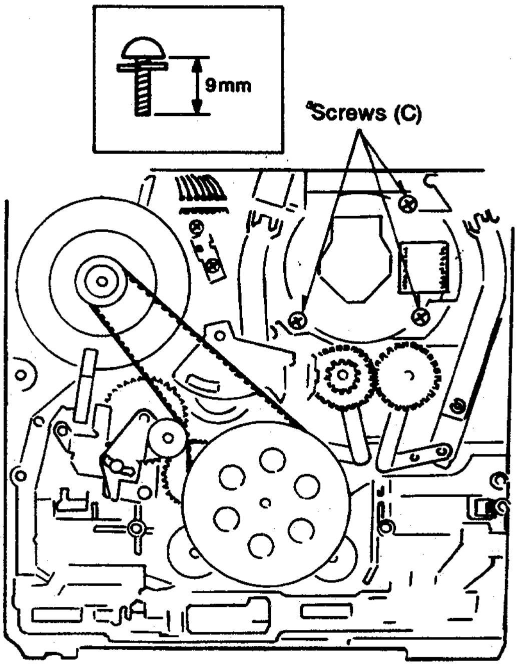


Fig. 1-11

note:
Since there is very little clearance between the scanning unit and the chassis, remove the scanning unit gently and carefully.

- Reinstall the new scanning unit, tighten the screws (C) and reinstall the earth holder with screw (B).
- Reconnect the head amplifier and 5P connector and tighten screws (A).

note:
After replacement, confirm the performance.
If any further maintenance is required, perform the nominal tape path adjustments (see chapter 2.8) and the 'Gap position' adjustment, see the relevant manual.

1.8 Replacement of the cylinder drive CBA (DMS 4/2)

- Remove the scanning unit refer to chapter 1.7.
- Place the scanning unit upside down.
- Unsolder the soldered portion (E) for shield case to take it out, see Fig. 1-12.
- Unsolder the soldered portion (D) indicated by an arrow mark (including the soldered portion inside the shield case).
- Remove screws (F) to remove the cylinder drive CBA.
- Reinstalling is the reverse way of above mentioned procedure.

1.9 Replacement of the upper cylinder (DM4/0, DM4/2)

The upper cylinder remover is useful to remove the upper cylinder easily, especially when it is too hard to remove by it hand.

- Remove 2 screws (A), then unsolder the soldered portions indicated by arrows as shown in Fig. 1-13.
- Set the screws of upper cylinder remover into holes (B) then tighten the screws of upper cylinder remover fully.
- Turn the handle of upper cylinder remover clockwise holding the upper cylinder firmly until it removes. (Upper cylinder is lifted up gradually during turning the handle).

Note:
- Work gently and carefully when removing the upper cylinder unit.
- Do not touch the video heads with bare hands during servicing. Use nylon gloves (5322 395 94022).
- **Do not remove the rotor (flywheel) of the scanning unit. The position of the flywheel is exactly adjusted in the factory.**

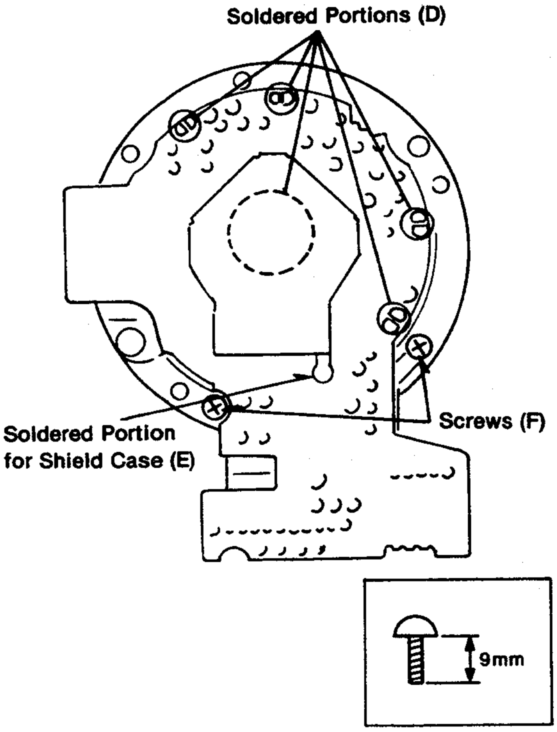

Soldered Portions (D)
Soldered Portion for Shield Case (E)
Screws (F)
9mm

Fig. 1-12

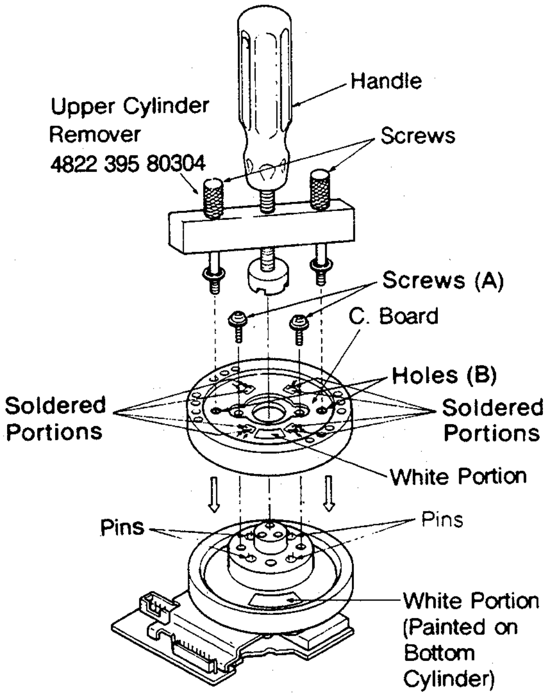

Upper Cylinder Remover 4822 395 80304
Handle
Screws
Screws (A)
C. Board
Holes (B)
Soldered Portions
Soldered Portions
White Portion
Pins
Pins
White Portion (Painted on Bottom Cylinder)

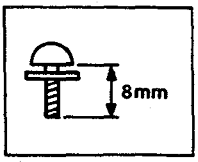
Fig. 1-13

Only for DM4/0, DM4/2 and DMS4/2

1.10 Replacement of the upper cylinder (DMS 4/2)

- Remove the two screws as shown in Fig. 1-14.
- Unsolder the soldered portion indicated by an arrow on the board.
- Remove the upper cylinder by lifting it upward.

Note:
Soldered portions can be removed easily by using solder sucking wire, etc.



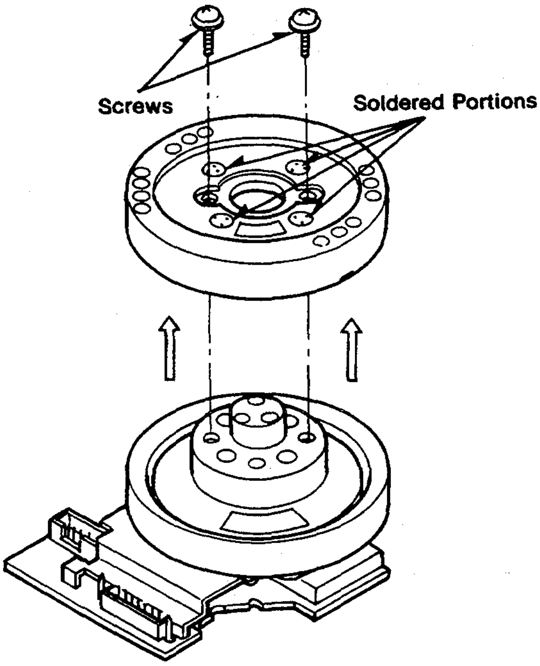

Screws
Soldered Portions

Fig. 1-14

- The upper cylinder unit can be reinstalled by reversing the removal procedure, however, when the upper cylinder is reinstalling, be extremely carefull so that the white portion of the cylinder board correctly matches the white portion of the bottom cylinder as shown in Fig. 1-15.

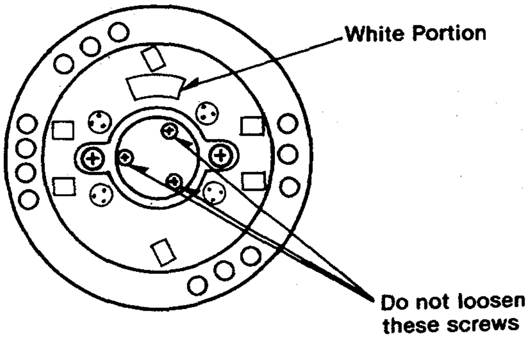

White Portion
Do not loosen these screws

Fig. 1-16

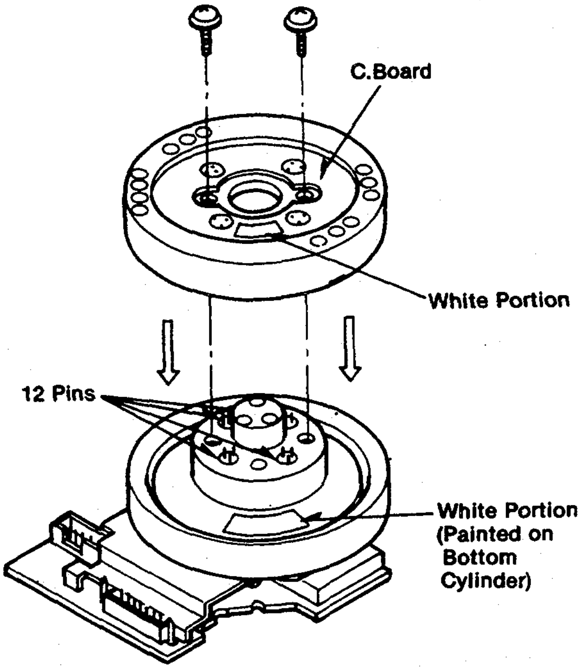

C.Board
White Portion
12 Pins
White Portion (Painted on Bottom Cylinder)

Fig. 1-15

Note:
- If the upper cylinder is reversely installed, no colour would appear when playing back a pre-record tape.
- **Do not loosen the 3 small screws on the top of the scanning unit, see Fig. 1-16.**
  If these screws are loosened the scanning unit is broken and can not be restored.

1.11 Replacement of the upper cylinder (DMP 4/0, DMP 4/2)

Demounting

- Push the locking pin (one is supplied with each service replacement upper cylinder) throughthe bottem hole of the scanner motor, line it up with the hole in the rotor by rotating the upper cylinder. Apply enough pressure to snap it home, see Fig. 1-17
- Loosen clamping screw A of the upper cylinder with 2 or 3 turns to the left.
- Carefully pull the upper cylinder from the drum motor. Do not touch the upper cylinder with bare hands, use nylon gloves (5322 395 94022).

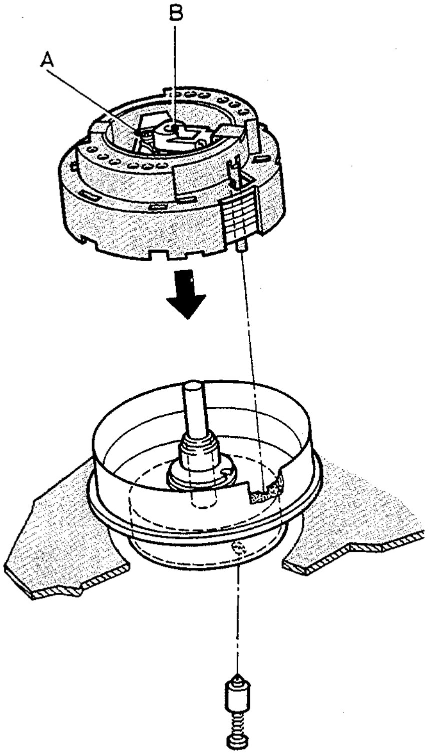


Fig.1-17

Mounting

- Before mounting the new upper cylinder, check that the axle of the drum motor is clean and undamaged (theaxle should be free from grease, do not touch it with bare hands).
- Position the upper cylinder on the scanner axle.

Attention:
The upper protective cover and the two 0.15 mm mylar foils remain on the upper cylinder during this operation, see Fig.xxxxx.

- Press down the upper cylinder in the centre B, see Fig.xxxx with a force of 1 N (centre of the protective cover).
- Turn fixing screw A clockwise with a torque of 20 Ncm.
- Pull protective cover from the upper cylinder.
- Pull out the two mylar foils at the side.
- Remove the rotor fixing pin.

Note:
After replacement of the upper cylinder the following checks have to be performed:

- Video switching point.
- Tape path inspection.
- Write current adjustment.

See for these adjustments the Service Manual of the relevant set.

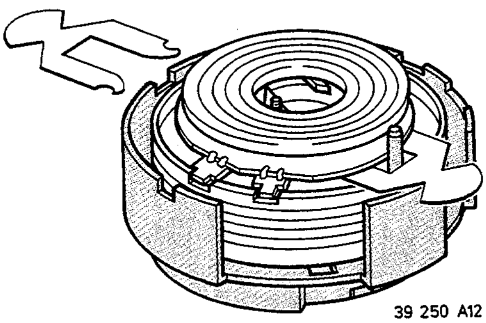


Fig. 1-18

1.12 Procedure for cleaning of upper cylinder unit

- Position the video head to permit access for cleaning and hold the upper cylinder to keep it from turning while cleaning, see Fig. 1-19.
- Gently rub the video head in direction of tape travel with a head cleaning stick.
- Repeat for the other video head.

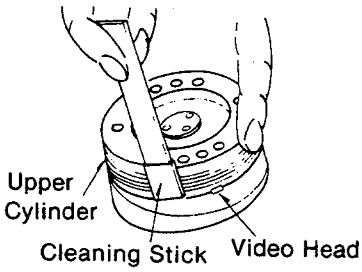


Fig. 1-19

1.13 How to use the disassembly chart

					REMOVAL		INSTALLATION
STEP No.	**START No.**	**PART**	**POS.**		**Fig. No.**	**REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER**	**ADJUSTMENT CONDITION**
1	1	D.D cylinder unit	6(1)	T	DM2	3(S-1)	See, chapter 1.6
2	2	A/C head unit	34(1)	T	DM1 DM3	(n-1),(W-1),*(P-1) *Wires at FE	(+) See, chapter 2.8B
4	4	Pinch cam cap	44(1)	T	DM1 DM4	*(L-1)	
5	4	Pressure roller unit	45(1)	T	DM1 DM4		(+) <Note 1>
①	②	③	④	⑤	⑥	⑦	⑧

① Order of steps in procedure
When reassembling, perform the step(s) in the reverse order.
These number are also used as the indentification (location) no. of parts in Figures DM (Deck Mechanism).

② Starting no. followed by corresponding part which can be removed at this stage.
See example below.
Example: A/C Head Unit can be removed without removing and other parts. But pressure roller pinch unit can be removed only after removing pinch cam cap (no. 4.).

③ Part to be removed or installed.

④ Pos. no. of the part in the exploded view. The number between brackets indicates the number of the exploded view.
(1) = Top view tapedeck
(2) = bottom view tapedeck
(3) = cassette compartment.

⑤ Location of part.
T = Top B = Bottom

⑥ Fig. no. showing procedure.

⑦ Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

P = Spring	W = Washer
C = Cut Washer	R = Retaining Ring
N = Nut	S = Screw

* = Unhook, unlock or release
3 (S-1) = 3 Screws (S-1)

⑧ Adjustment information for installation.
# = condition for adjustment
(+): Refer to Exploded Views for Lubrication information.

1.14 Connection of the flexible cable to trap connector P1504 and P1508

(Removal or installation of flexible cable)

1. Removal:
   On the trap connector, pull out both ends of the locking tab surrounding the cable end to release the trap connector.
   Then pull flexible cable out to remove as shown in Fig. 1-18.
2. Installation:
   - ★ Insert the end of the flexible cable into the trap connector so it lays smoothly across the slot.
   - ★ Press the middle of the cable firmly against the trap connector slot, and hold it there securely.
   - ★ Without pinching the cable press the locking tabs in against the trap connector until both ends snap into their locked positions.
   - ★ Pull lightly on the cable to check for positive connection.

Note:
Take care when removing or installing the flexible cable to prevent cable damage.

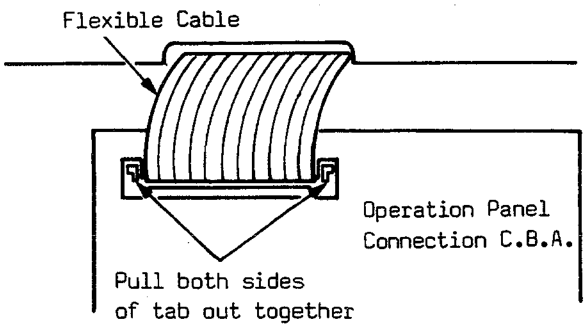


Fig. 1-18

1.15 Descripion of the system used for publishing modificationdata and supplements to the Service Manual

All modification data and supplements to the Service Manual are published by means of Service Information bulletins.
Each Service Information has a number, for example:

VR 88 01 GB
Language code
Sequence number
Year
Video cassette recorder

A service Information bulletin consists of a yellow front sheet, As the case may be followed by suplementary and/or replacement sheets.
Replacement sheets serve to replace existing sheets in the Service Manual. These sheets are indentified by an additional letter after the page number, for example 1a. Page 1a then takes the place of page 1.

Supplement sheets are inserted between the existing sheets in the Service manual. These sheets can be identified by an additional figure following the page number, for example 1-1.
Sheet 1-1 should be inserted after page 1.
Each Service Information is accompanied by an updated list of contents per page.
For each page added or each page replaced the list of contents indicates with which Service Information the relevant page has been published.

- **Description of the system by means of which modifications are indicated in the recorder**

The tape deck is provided with a sticker.
This sticker specifies a number of product data.
The meaning of this data will now be explained.

Tape deck
Location of the sticker: to the upside of the chassis between the reel tables.
Example

For tape deck DMP

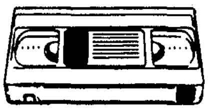
DMP 2-2 0757.5 — Factory code number
1-1 05 WD02 — Production code
810 000 11993
Serial number
Production week

For tape deck DM or DMS

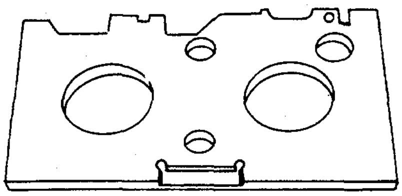
6 S BX 8 00358 Factorycodenumber
Serial number
Production year
Chassis code
Production code
Production month

Note:
The production code and the serial number on the tape deck need not correspond to the production code and the serial number on the type plate of the set.

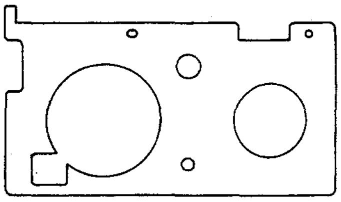
1.16 Auxiliary fixtures and tools for tape deck adjustments



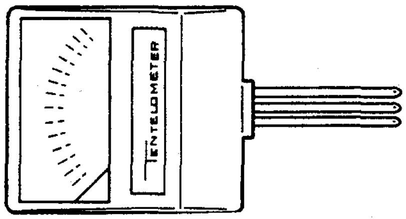
Alignment cassette
4822 397 30103



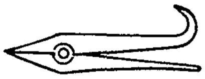
Post adjustment plate
4822 395 80184



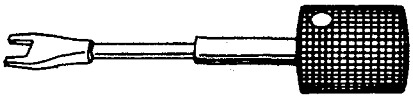
Tension post adj. fixture
4822 395 90587



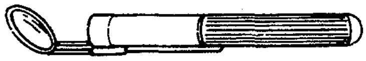
Back tension meter
4822 395 90584



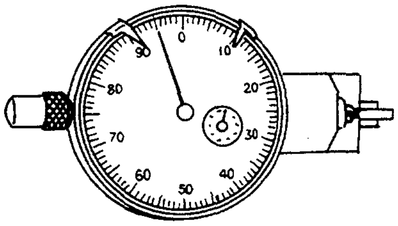
Retaining ring remover
4822 395 40055



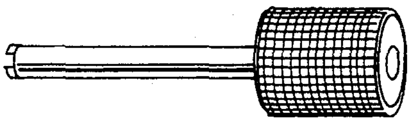
H. position screwdriver
4822 395 50274



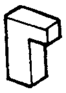
Check light
4822 395 90585



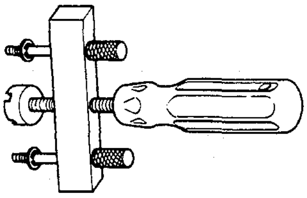
Micro meter
4822 395 90238



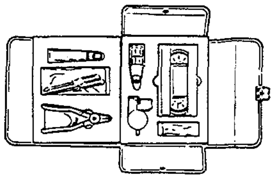
Post adjustment screwdriver
4822 395 50275



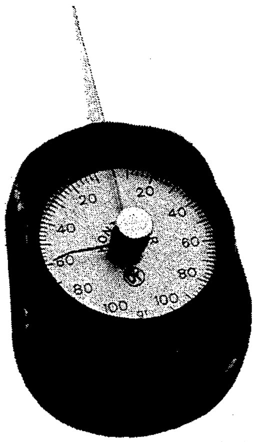
Height adjustment fixture
4822 395 90586



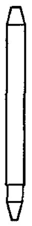
Upper cylinder remover
4822 395 80304



Tool kit
4822 395 90253



Spring pressure meter
5322 395 84011



Center pin
4822 395 60044

Fig. 1-19

2. MECHANICAL ADJUSTMENT PROCEDURES

2.1 Tension adjustment of timing belt

(Equipment Required)
Spring pressure meter 5322 395 84011
(Specification 40 ± 5g)

1. Loosen screw (A) slightly by using a screwdriver.
2. Set the spring pressure meter 5322 395 84011 to the direction indicated by the arrow (B) as shown in Fig. 2-1.
3. Tighten screw (A) when the reading of the spring pressure meter 5322 395 84011 becomes within 40 ± 5g.

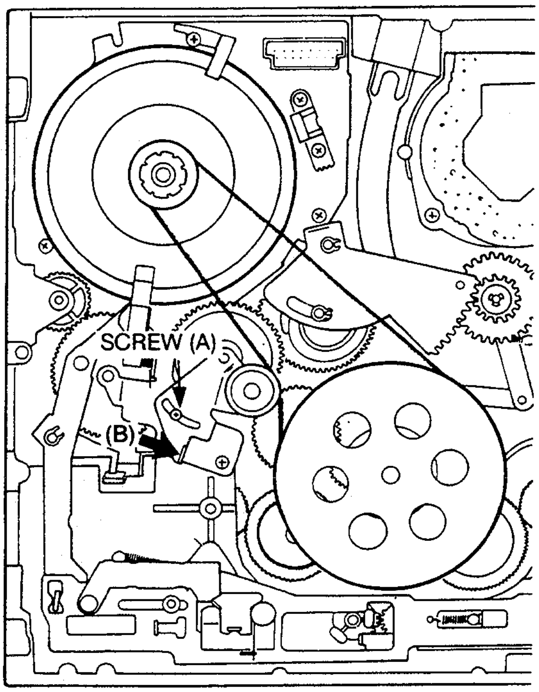


Fig. 2-1

2.2 Position adjustment of tension post pos. nr. 11(1)

(Equipment Required)
Tension post adjustment plate 4822 395 90587
Hex. Wrench: 2mm

- Disconnect the mains supply.
- Remove the cassette compartment and disconnect the flexible cable from P1508, see chapter 1.4.
- Turn the capstan motor clockwise while pushing change lever pos. no. 122(2) until loading is completed as shown in Fig. 2-2.
- Place the adjustment plate and insert the hex wrench into the hole of tension band fastener pos. no. 11(1), as shown in Fig. 2-3.
- Adjust the tension band fastener by using the hex wrench so that the outside edge of the tension post just touches the fixture of adjustment plate.
- After the adjustment, turn the capstan motor counter clockwise until the unloading is completed.

Note:
For assembling the cassette compartment, refer to chapter 4.10 "Reinstallation of cassette compartment".

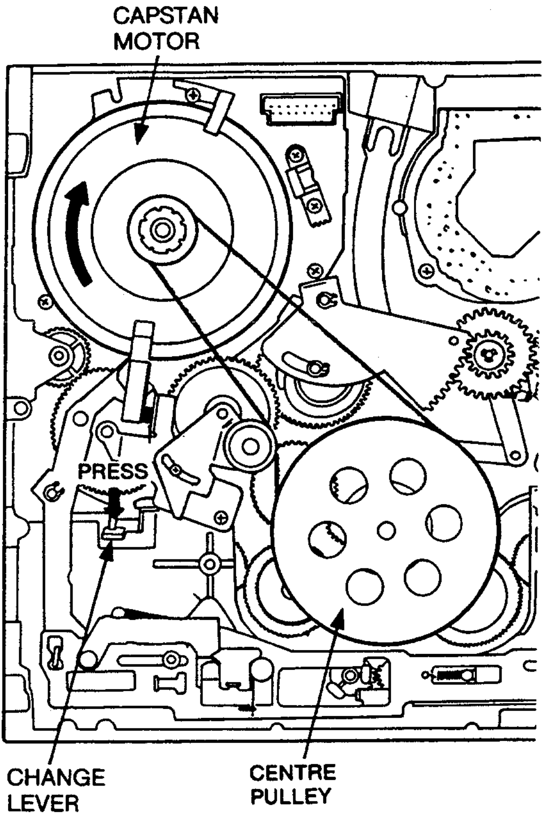


Fig. 2-2

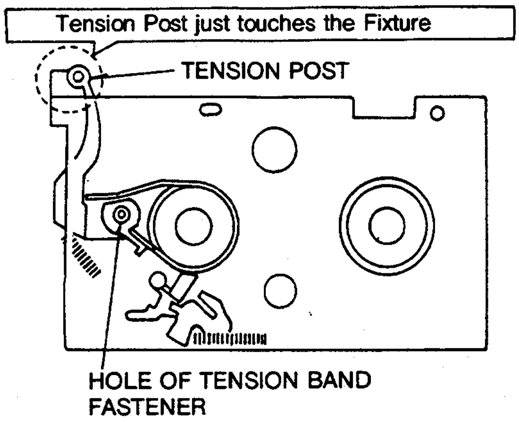

Tension Post just touches the Fixture
TENSION POST
HOLE OF TENSION BAND FASTENER

Fig. 2-3

2.3 Measurement and adjustment of the tape tension

(Equipment Required)	
Back tension meter	4822 395 90584
VHS cassette (180 minutes tape)	
(Specification 20 ... 25g)	

1. Playback the cassette tape from the beginning and wait approx. 10 ... 20 seconds. until the tape movement has been stabilized.
2. Insert the back tension meter in tape path and measure the back tension to be within specification as shown in Fig. 2-4.

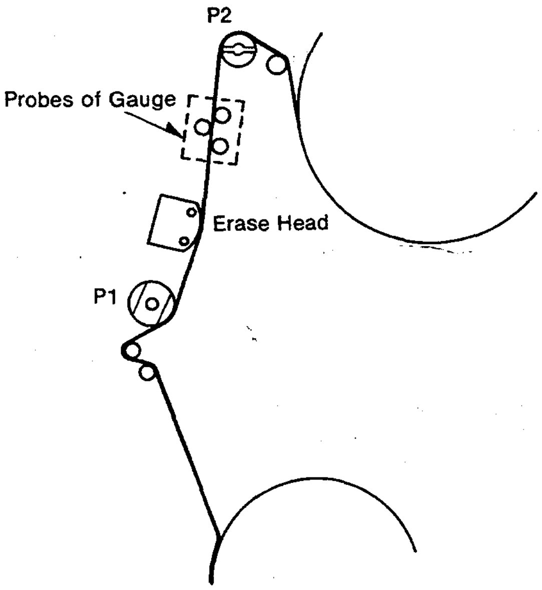


Fig. 2-4

Note:

- While measuring, make sure that the three probes of the meter are all in solid contact with the tape.
- As the tension meter is very sensitive, it is recommended to take 3 separate measurements.
- If the measurement is out of specification, re-position spring pos. no. 12(1) on the tension arm base teeth as shown in Fig. 2-5.
- Re-position tension spring toward front side to tighten tension, towad rear to loosen tension.
- Reinstall a cassette and verify tension with the meter once again.

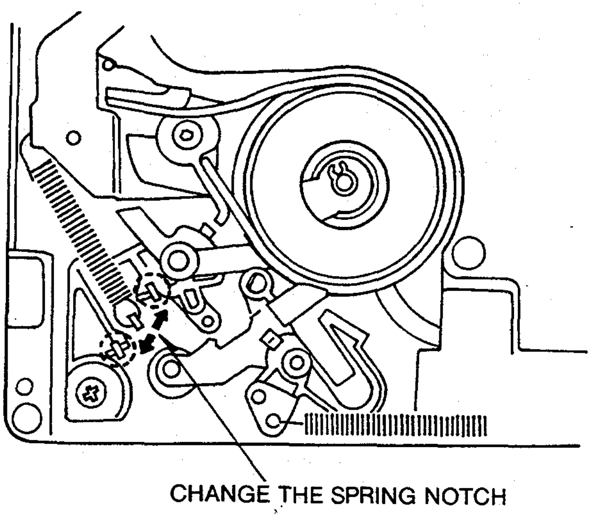


Fig. 2-5

2.4 Height adjustment of the reel tables

(Equipment Required)	
Post adjustment plate	4822 395 80184
Micrometer	4822 395 90238
(Specification 0 ... 0.2mm)	

- Remove the cassette compartment, see chapter 1.4.
- Place the post adjustment plate over the reel tables.
- Place the foot on the adjustment plate so that the foot of the meter touches the cut–out portion of the plate. Set the meter to zero "0" (reference setting) as shown in Fig. 2-6.

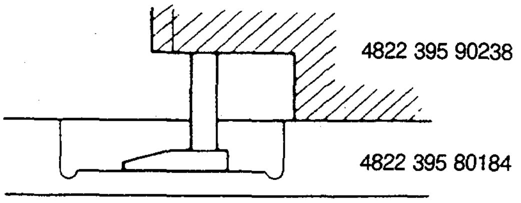


Fig. 2-6

- Measure the top surface of the reel table as shown in Fig. 2-7, and compare the difference against the result of the reference setting. Do the same for the other reel table.
- If the difference is more than 0.2mm (higher or lower), replace the poly washer located under the reel table with one of the appropriate thickness. Reel washers are available in thickness of 0.2 mm, 0.3mm and 0.5mm.

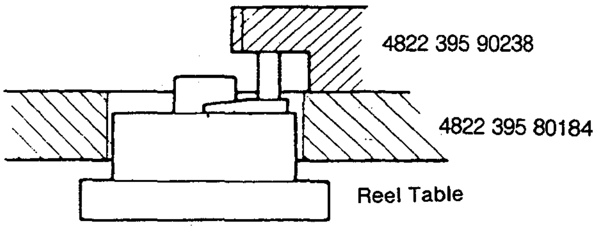


Fig. 2-7

Washer Thickness	Part No.
0.2mm	4822 532 52057
0.3mm	4822 532 52058
0.5mm	4822 532 52055

2.5 Adjustment of the capstan thrust gap

(Equipment Required)

Micro meter	4822 395 90238
Height adjustment fixture	4822 395 90586

(Specification 0.5 ... 0.55mm)

- Place the tape deck upside down.
- Turn the thrust adjust screw pos. no. 41(1) slightly until the capstan roter unit just touches the coil of the capstan stator unit, see Fig. 2-8

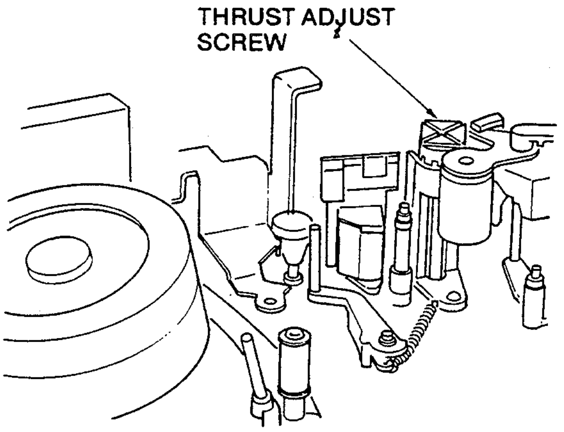

THRUST ADJUST SCREW

Fig. 2-8

- Set the height adjustment fixture on the capstan roter unit, see Fig. 2-9.
- Place the height fixture on the tape deck chassis and the foot on the longest side of the height fixture. Set the meter to "0" (reference position), see Fig. 2-9.
- Adjust thrust screw pos. no. 41(1) so that the thrust gap becomes 0.5 ... 0.55mm, see Fig. 2-10.

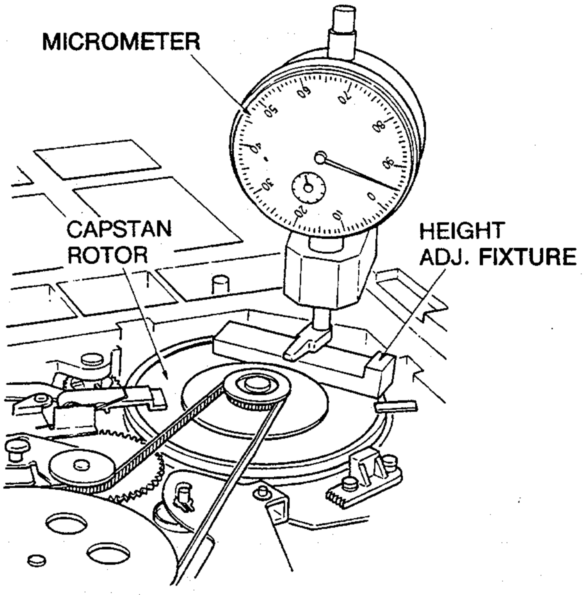

MICROMETER
CAPSTAN ROTOR
HEIGHT ADJ. FIXTURE

Fig. 2-9

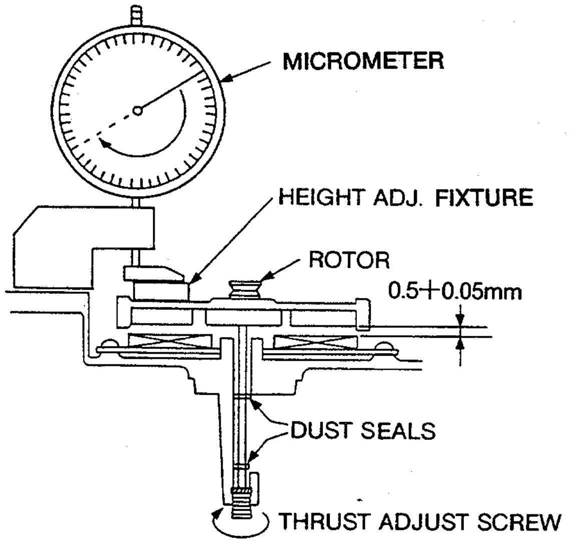

MICROMETER
HEIGHT ADJ. FIXTURE
ROTOR
0.5+0.05mm
DUST SEALS
THRUST ADJUST SCREW

Fig. 2-10

2.6 Height adjustment of tape guide posts P2 and P5

(Equipment Required)

Post adjustment plate	4822 395 80184
Micro meter	4822 395 90238
Post adjustment screwdriver	4822 395 50275

- Remove the cassette compartment, see chapter 1.4.
- Place the post adjusmten plate over the reel tables. Confirm that the post adjustment plate is firmly seated as shown in Fig. 2-11.

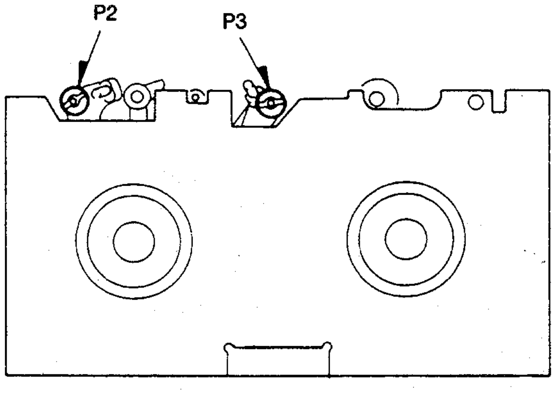


Fig. 2-11

- First lower all posts to match the height condition as shown in Fig. 2-12.
  The upper edge of the lower tape guide on each post should be below the bottom of the foot.
  Loosen lock screws located at lower position of post P2 & P3 using a lock screw wrench, then turn the posts with post adjustment screwdriver.

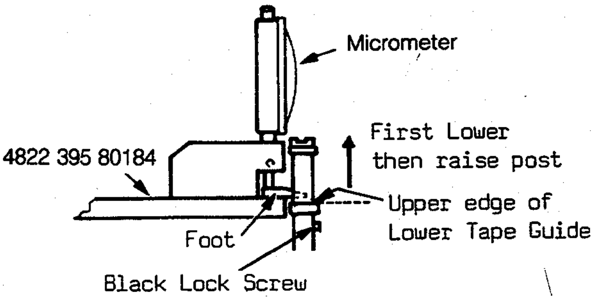

Micrometer
4822 395 80184
First Lower then raise post
Upper edge of Lower Tape Guide
Foot
Black Lock Screw

Fig. 2-12

- Place the fixture on the adjustment plate and fit the foot to the adjustment plate as shown in Fig. 2-12. (The foot of the fixture should be fully lowered till it touches the plate.)
- Set the fixture to '0' and slowly raise the post until it touches the foot. When the foot touches the post, it should fit as shown in Fig. 2-13.
  For adjustment of P2 and P3, use the post adjustment screwdriver.

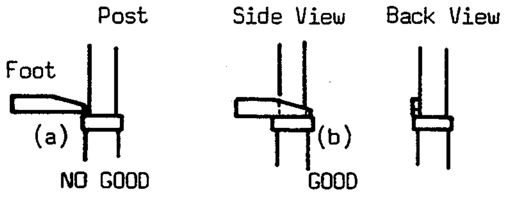


Fig. 2-13

Note:
After the adjustment, install the cassette compartment refering to chapter 4.10 "Reinstallation of cassette compartment".

2.7 Height adjustment of pull-out post P5

(Equipment Required)	
Post adjustment plate	4822 395 80184
Micrometer	4822 395 90238
Nut driver 5.5 mm	
specification (–0.06 + ± 0.01mm)	

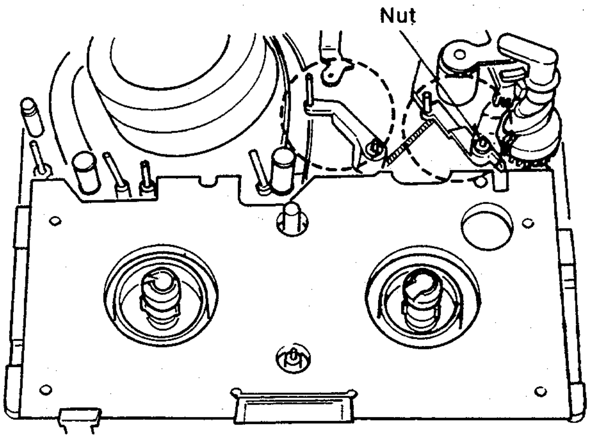


Fig. 2-14

Note:
Unless replacement or adjustment of this post is required, adjustment nut pos. no. 52(1) should not be performed.

- Remove the cassette compartment, see chapter 1.4.
- Place the post adjustment plate over the reel tables.
- Turn the capstan motor counter clockwise (loading direction) until the mechanical position becomes as shown in Fig. 2-14.
- Place the micrometer on the post adjustment plate and set the meter to zero "0" as shown in Fig. 2-15.
- Slightly raise the P5 post above the plate by turning the 5.5 mm Nut counter clockwise.
  Place the foot on the post as shown in Fig. 2-15.
- Now slowly turn the 5.5 mm Nut clockwise until the meter reads the specified height.
- After the adjustment, install the cassette compartment, (refer to chapter 4.10 "Reinstallation of cassette compartment").
- Play back a cassette tape and make sure that the edges of the tape are not curling at the bottom or top side of posts P1, P2, P3, P4 and pull out post P5 as shown in Fig. 2-16.
- If curling appears, readjust each post, except P1 and P4

Note:
The heights of posts P1 and P4 are exactly adjusted in the factory.
Do not disassemble there posts otherwise the monINAL tape path will be completely unserviceable.

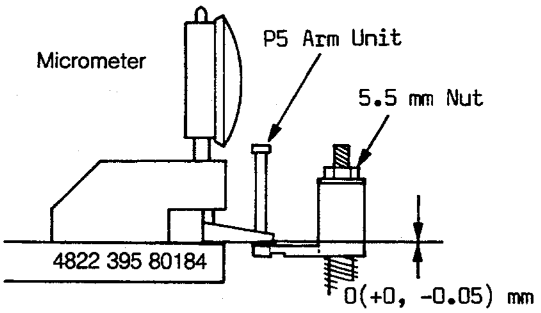


Fig. 2-15

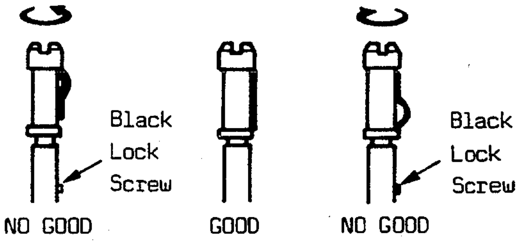


Fig. 2-16

2.8 Nominal tape path adjustment

Note:
Perform following procedures for nominal tape path adjustment. Do it correctly and smoothly.
A. Confirmation and adjustment of P2 and P3 posts.
B. Height adjustment of A/C head.
C. Tilt adjustment of A/C head.
D. Azimuth adjustment of A/C head.
E. Horizontal position of A/C head.
F. Confirmation of the tape path adjustment.

If the tape Path adjustment is not perfect, repeat the above procedures from A to F. Fig. 2-17 shows the position of the tape guide posts.

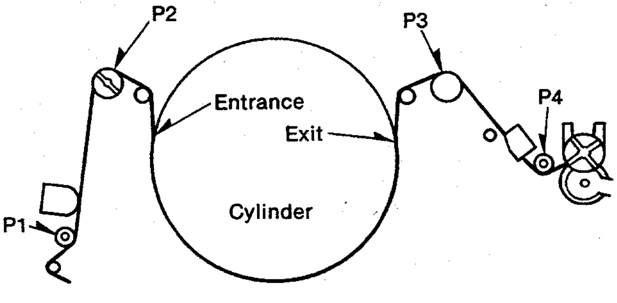


Fig. 2-17

A. confirmation and adjustment of P2 and P3 posts

(Equipment Required)	
Alignment tape	4822 397 30103
Post adjustment screwdriver	4822 395 50275

- Switch the set off and on again
  (By switching the set off and on the tracking control will be adjusted to a nominal value).
- Connect the oscilloscope to the output of the head amp as shown in Fig. 2-18.
  For the connecting points make reference to the relevant service Manual.

  Note:
  To get a stable waveform of the head amp output on the oscilloscope, use the head switching pulse as a triggering signal as shown in fig. 2-18.

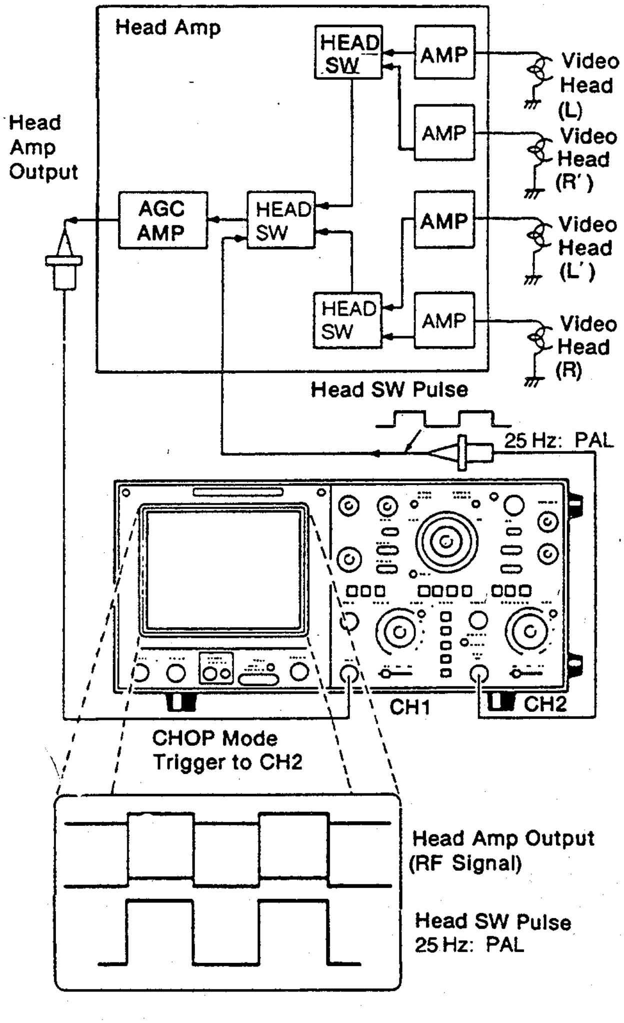

Head Amp
HEAD SW
AMP
Video Head (L)
AMP
Video Head (R')
Head Amp Output
AGC AMP
HEAD SW
AMP
Video Head (L')
HEAD SW
AMP
Video Head (R)
Head SW Pulse
25 Hz: PAL
CH1
CH2
CHOP Mode
Trigger to CH2
Head Amp Output (RF Signal)
Head SW Pulse
25 Hz: PAL

Fig. 2-18

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- Play back the alignment tape.
- If a FM envelope appears like example "A" or "B" in Fig. 2-19 then adjustment of the tape guide post is necessary (P2: entrance).
- Adjust tape guide post P2 with the post adjustment screwdriver so that the FM envelope waveform at the entrance portion becomes flat as shown in Fig. 2-19.
- If the FM envelope appears like example "D" or "E" in Fig. 2-20, then adjustment of the tape guide post (P3: Exit) is necessary.
- Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in Fig. 2-20.

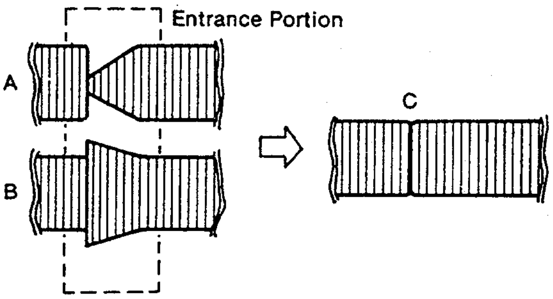

Entrance Portion
A
B
C

Fig. 2-19

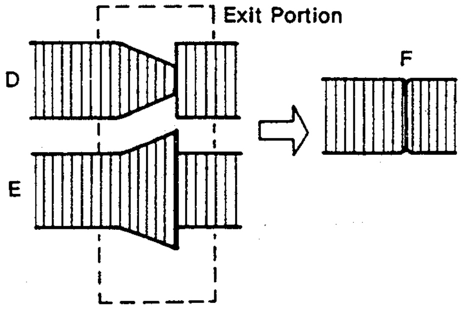

Exit Portion
D
E
F

Fig. 2-20

B. Height adjustment of A/C head

Note:
This procedure should be performed only when the A/C head is replaced.

(Equipment Required)	
Check Light	4822 395 90585
Nut driver 7 mm	

- With the tape running, look at the lower edge of the control head by using the check light and check if the lower edge of the tape runs along the lower edge of the control head, see Fig. 2-21.
  If it doesn't, slightly turn nut C behind the A/C head (Fig. 2-21) to either lower or raise the A/C head so that the tape runs along the lower edge of the control head.
  Turn the nut C clockwise to lower the head, and counter-clockwise to raise it.

Note:
The mark on the A/C head indicates the lower edge. Scew marked (*) pressures the A/C head to the bottom plate. Do not tighten the screw to fast otherwise the A/C head alignments can not be reached.

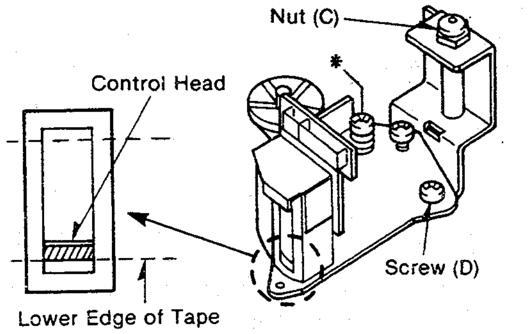

Nut (C)
*
Control Head
Screw (D)
Lower Edge of Tape

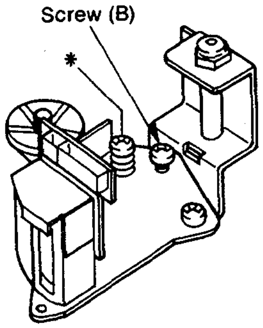
Fig. 2-21

44 456 A11

C. Tilt adjustment of A/C head

Note:
This procedure should be performed after replacing the A/C head or pressure roller pos. no. 45(1).

- Playback the beginning portion of a blank cassette tape and confirm that the tape runs between the lower and upper limiter of P4 post. If there is waving or curling in the lower edge or top edge of the tape, correct the tilt of the a/C head by turning screw B, see Fig. 2-22 located behind the A/C head.
  Fig. 2-23 shows the direction how the turn to correct curling.



44 466 A11

Fig. 2-22

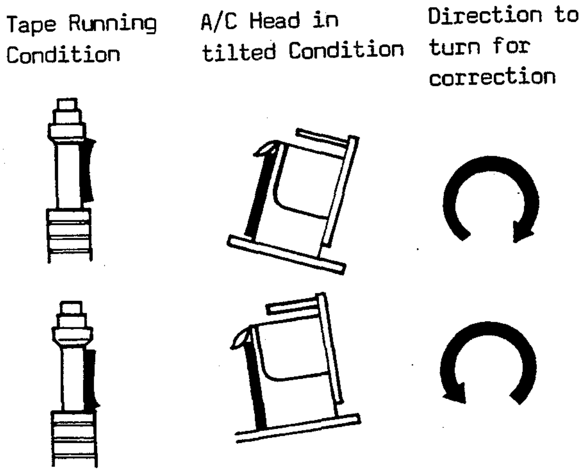

Tape Running Condition
A/C Head in tilted Condition
Direction to turn for correction

Fig. -23

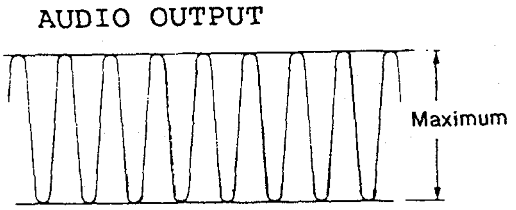
Note:
After tilt adjustment of the A/C head, height adjustment of A/C head is required.

D. Azimuth adjustment of A/C head

Note:
This procedure should be performed only when the A/C head is replaced and posts height are readjusted.

(Equipment Required)	
Alignment tape	4822 397 30103

- Connect the oscilloscope to the audio output on the rear panel.
- Play back the 2nd portion (normal audio 6KHz) of the alignment tape.
- Adjust screw D so that the output level becomes maximum, see Fig. 2-24



44 458 A11

Fig. 2-24

E. Horizontal position adjustment of A/C head

Note:
THis procedure should be performed only when the A/C head is replaced, and after performing the tape path adjustment.

(Equipment Required)	
H–Position adjustment screwdriver	4822 395 50274
Alignment tape	4822 397 30103

- Switch the set off and on again
  (By switching the set off and on the tracking control will be adjusted to a nominal value).
- Connect the oscilloscope to the output of the head amp as shown in Fig. 2-18.
  For the connecting points make reference to the relevant service Manual.
- Play back the alignment tape
- Adjust horizontal position screw pos. no. 36(1) of the A/C head, see Fig. 2-25 so that the RF signal becomes maximum, see Fig. 2-26.

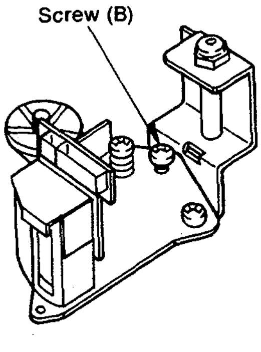


Fig. 2-25

F. Confirmation of the tape path adjustment.

- Switch the set off and on again to perform a nominal tracking position control.
- Connect the oscilloscope to the output of the head amplifier as shown in Fig. 2-18.
- The symmetrie of the FM envelope, can be checked after pressing the "TRACKING" button.
  The output level must be almost equal as shown in Fig. 2-26.
- If the FM envelope does not meet the specification ($V1/V \geqslant 0.7$; $V2/V \geqslant 0.8$) see Fig. 2-27, repeat above mentioned adjustments A to F.

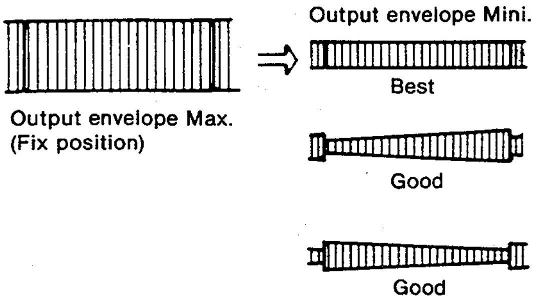
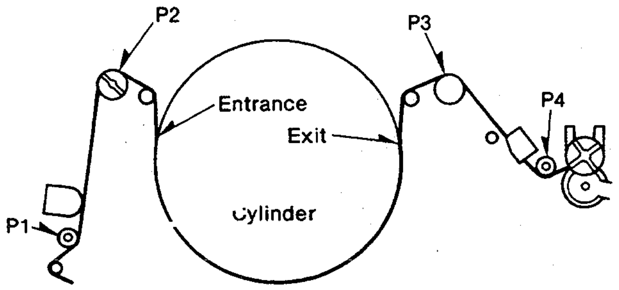

Output envelope Mini.
Best
Good
Good
Output envelope Max.
(Fix position)

Fig. 2-26


P2
P3
P4
Entrance
Exit
Cylinder
P1

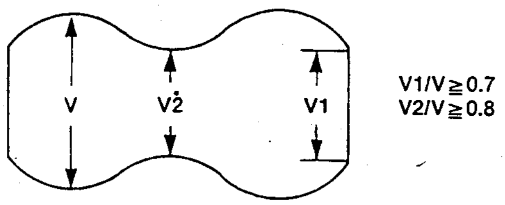

V
V2
V1
V1/V≧0.7
V2/V≧0.8

Fig. 2-27

44 465 B11

2.9 Adjusment of FG head

(Equipment required)
Oscilloscoop
Feeler gauge 0.1-0.13 mm

- Place the unit upside down.
- Slightly loosen screws A, see Fig. 2-28.
- Adjust the FG head until the distance between capstan rotor and Fb head is 0.1-0.13 mm.
- Tighten screws A.
- Confirm that the FG head output level is more than 10 mVpp.
  If the level is not more than 10 mVpp, re-adjust the FG head gap so that the FG head output level is more than 10 mVpp

Note:
Do not touch the outside circumference of the rotor surface with any tool and keep magnetic material away from the rotor magnet (especially metal particles).

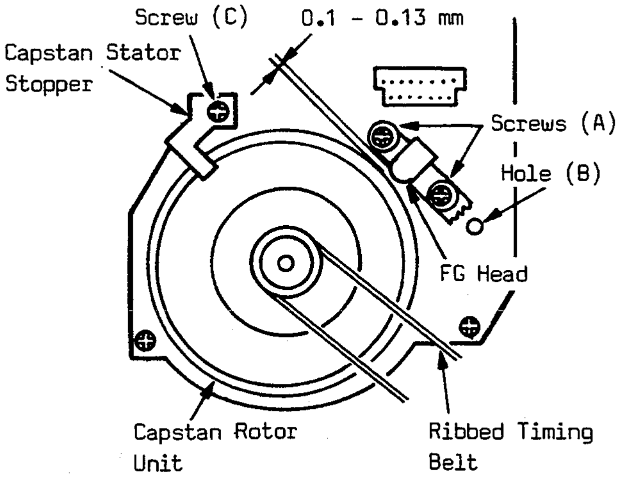

Screw (C)
0.1 - 0.13 mm
Capstan Stator
Stopper
Screws (A)
Hole (B)
FG Head
Capstan Rotor
Unit
Ribbed Timing
Belt

Fig. 2-28

3. DISASSEMBLY CHART AND PROCEDURES

3.1 Chassis

This procedure starts with the condition that the cabinet parts, front C.B.A., Cassette and head Amp assy have been removed.
Also, all the following procedures for adjustment and part replacement should be performed in STOP mode. When reassembling, perform the step(s) in the reserve order.

					REMOVAL		INSTALLATION
STEP No.	**START No.**	**PART**	**POS.**		**Fig. No.**	**REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER**	**ADJUSTMENT CONDITION**
1	1	D.D scanning unit	6(1)	T	DM2	3(S-1)	See, chapter 1.6
2	2	A/C head unit	34(1)	T	DM1 DM3	(N-1), *(P-1) *Wires at FE	(+) See, chapter 2.8B
3	3	Sub loading arm unit	39(1)	T	DM1	(R-1),*(P-2)	(+) See, Fig. DM17
4	4	Pinch cam cap	44(1)	T	DM1 DM4	*(L-1)	
5	4	Pressure roller unit	45(1)	T	DM1 DM4		(+) <Note 1>
6	5	Pinch cam	51(1)	T	DM1 DM4		See, chapter 4.9
7	6	Pinch speed down gear	64(1)	T	DM1 DM4	(C-8)	(+) See, chapter 4.2
8	8	Connection gear	65(1)	T	DM1 DM4	(C-1) <note 2>	(+) See, chapter 4.7
9	9	Main brake units	24(1) 27(1)	T	DM1 DM5	2(C-2),*2(P-3),*(P-4) <note 2>	(+) See, setting condition in Fig. DM5
10	9	Tension band unit	13(1)	T	DM1 DM6	*(P-5),*(L-2)	(+) See, chapter 2.2
11	11	Takeup reel table	71(1)	T	DM1	(R-2)	<note 5>
12	10	Supply reel table	14(1)	T	DM1	(R-3)	(+) See, chapter 2.4
13	5	P5 sector gear	50(1)	T	DM1 DM7	*(L-3)	See, chapter 4.8
14	13	P5 unit	53(1)	T	DM1 DM7	(N-2),(W-2),*(P-6)	(+) Stop (half loading)<note 3> and see chapter 2.7
15	15	SS brake unit	105(2)	B	DM2	(C-4)	<note 2>
16	16	Tension roller unit	108(2)	B	DM2	(S-2)	
17	16	Brake base	107(2)	B	DM2	(S-3)	
18	18	Cam follower arm unit	109(2)	B	DM2	(R-5)	<note 4>
19	18	Main/sub lever	103(2) 104(2)	B	DM2 DM9	2(C-3),2(W-4)	See, setting condition in Fig. DM9
20	19	Center pulley unit	137(2)	B	DM2 DM10	(C-4),(W-5) Ribbed timing belt <note 2>	(+) See, Fig. DM10
21	20	Clutch disk ass'y	116(2)	B	DM2 DM11	(C-5) <note 2>	See, chapter 4.4
22	20	Stopper base	131(2)	B	DM12	(S-4)	
23	17	Centre gear	113(2)	B	DM2 DM11	(C-6)	(+) See, chapters 4.4
24	17,18	Main cam gear	111(2)	B	DM2 DM11	(R-6)	(+) See, chapters 4.2 and 4.3
25	24	Detent arm	110(2)	B	DM11		(+)
26	25	Sub cam gear	112(2)	B	DM4 DM11		(+) See, chapter 4.1

					REMOVAL		INSTALLATION
STEP No.	**START No.**	**PART**	**POS.**		**Fig. No.**	**REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER**	**ADJUSTMENT CONDITION**
27	26	Release lever unit	125(2)	B	DM13	(S-5)	See, setting condition in Fig. DM13
28	27	Intermediate gear	146(2)	B	DM14	(C-7),(W-6)	
29	28,30	Drive disk	119(2)	B	DM14		
30	30	Sector gear unit	141(2)	B	DM2 DM11	2 (R-6)	(+) See, chapter 4.6 <note 7>
31	30,23	Loading cam gear	142(2)	B	DM11		(+) See chapter 4.3 <note 7>
32	31	Play arm unit	147(2)	B	DM14		
33	32	Play control arm	144(2)	B	DM14	*(L-4)	
34	31	Retainer gear	114(2)	B	DM11		(+) See, chapter 4.3
35	33	Ring gear	120(2)	B	DM11		(+) See, chapter 4.1
36	30,20	Loading arm-S unit	145(2)	B	DM2 Dm11	*(L-5)	(+) See, chapter 4.6
37	30,20	Loading arm-T unit	140(2)	B	DM2 DM11	*(L-6)	
38	12	Tension arm base unit	18(1)	T	DM1 DM2	(S-6), *(L-7)	(+) See, chapter 2.2
39	7	Housing unit	72(1)	T	DM1	3(S-7)	(+)
40	39,3	Flex C.B.A.		T	DM1 DM15	3(S-8) *Connection	
41	6	Mode switch	55(1)	T	DM1	(S-9) *Connections	See, chapter 4, 8
42	40	Shield plate	56(1)	T	DM15		
43	43	Solenoid unit	66(1)	T	DM16	(S-10), *Connections	
44	43	Solenoid lever unit	68(1)	T	DM16	*(L-8)	(+)
45	45	Post stopper (L,R)	60(1)	T	DM1	4(S-11)	<note 6>
46	45,36	Inclined base unit (S)	58(1)	T	DM1		(+) See chapter 2.6
47	45,37	Inclined base unit (T)	62(1)	T	DM1		

List of Abbreviations:

C.B.A. = Circuit Board Assembly
T = Top; B = Bottom
(R-1) = Retaining Ring(R-1); (P-1) = Spring (P-1); (S-1) = Screw (S-1);
(W-1) = Washer (W-1); 2(S-2) = 2 Screws (S-2); (C-1) = Cut Washer (C-1);
(N-1) = Nut (N-1); (L-1) = locking Tab (L-1)
(+): Refer to Exploded Views for Lubrication information.

TOP VIEW

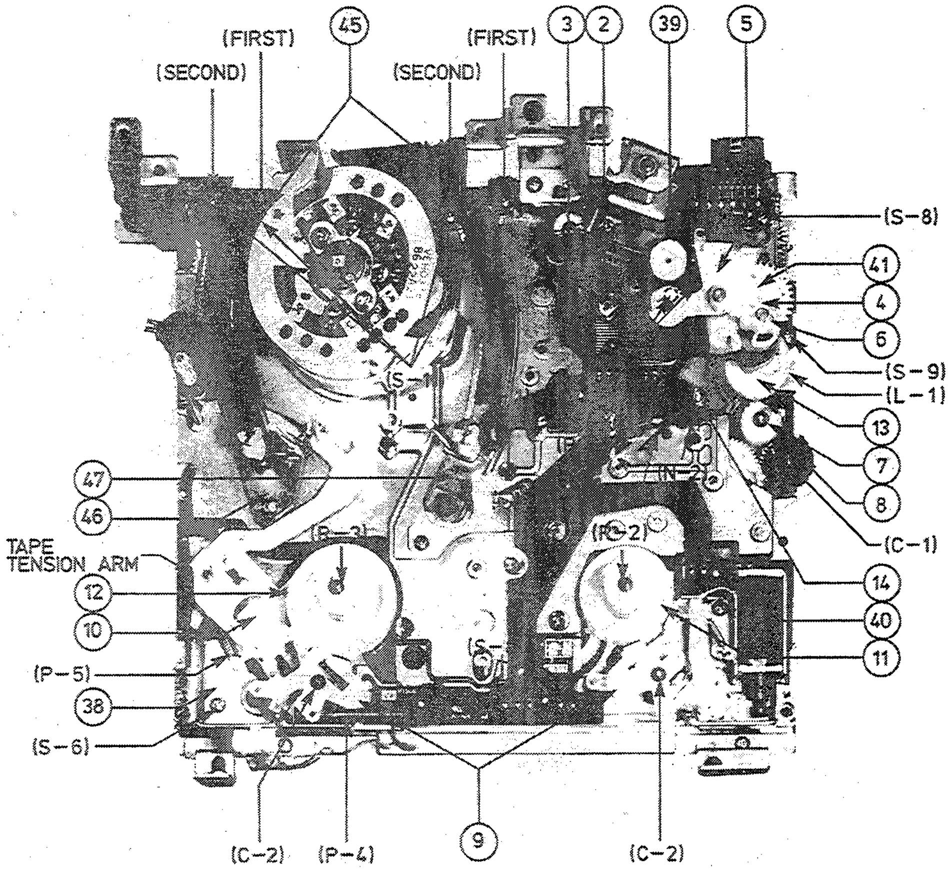

(FIRST)
(SECOND)
㊺
(FIRST)
(SECOND)
③
②
㊴
⑤
(S−8)
㊶
④
⑥
(S−9)
(L−1)
⑬
⑦
⑧
(C−1)
⑭
㊵
⑪
(S−1)
(N−2)
(R−3)
(R−2)
㊼
㊻
TAPE TENSION ARM
⑫
⑩
(P−5)
㊳
(S−6)
(S−)
(C−2)
(P−4)
⑨
(C−2)
44 202 B11

Fig. DM1

BOTTOM VIEW

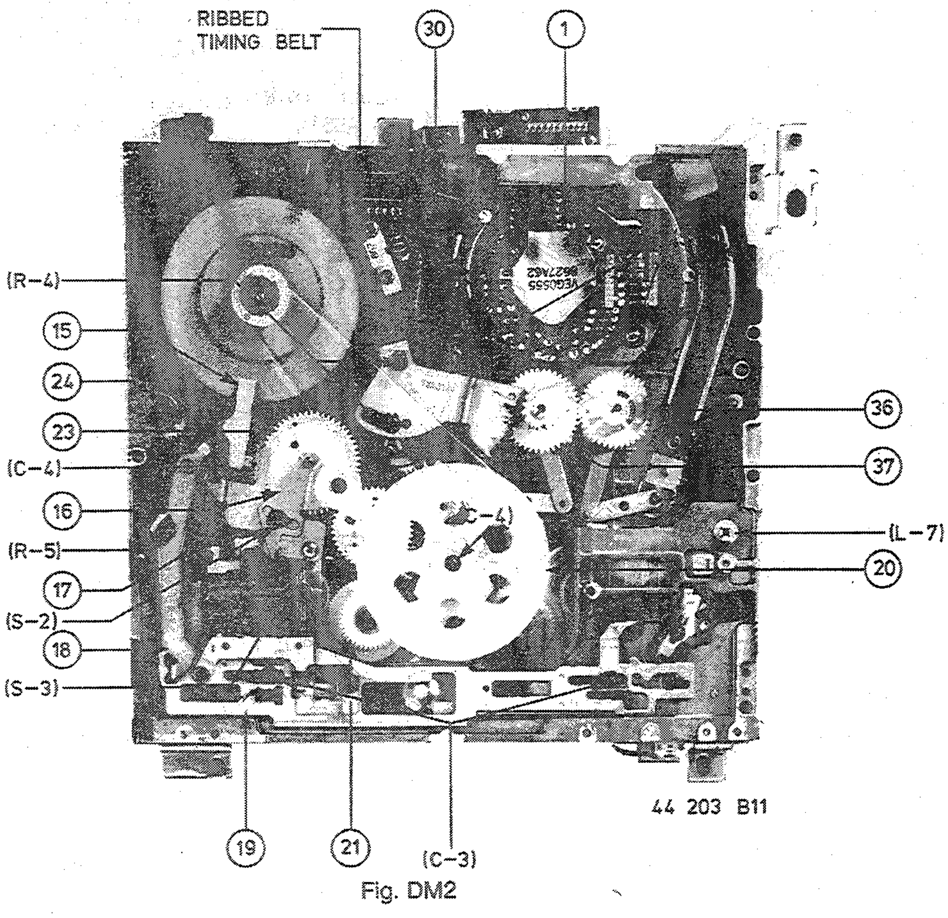

RIBBED TIMING BELT
㉚
①
(R−4)
⑮
㉔
㉓
(C−4)
⑯
(R−5)
⑰
(S−2)
⑱
(S−3)
(C−4)
㊱
㊲
(L−7)
⑳
⑲
㉑
(C−3)
44 203 B11

Fig. DM2

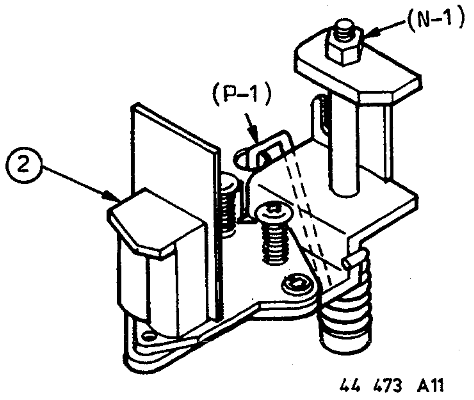

(N-1)
(P-1)
②
44 473 A11

Fig. DM3

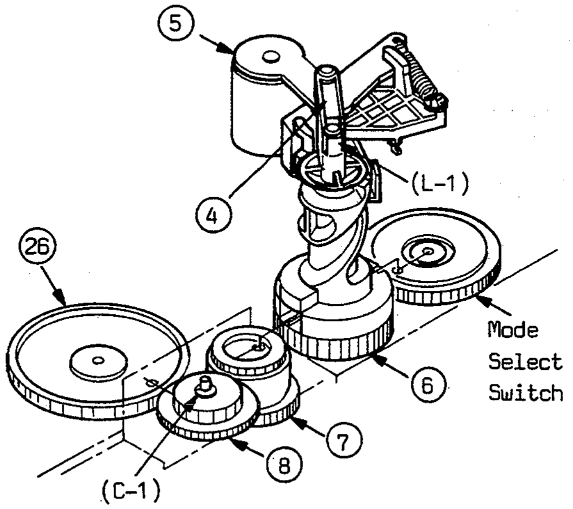

⑤
④
(L-1)
㉖
Mode
Select
Switch
⑥
⑦
⑧
(C-1)

Fig. DM4

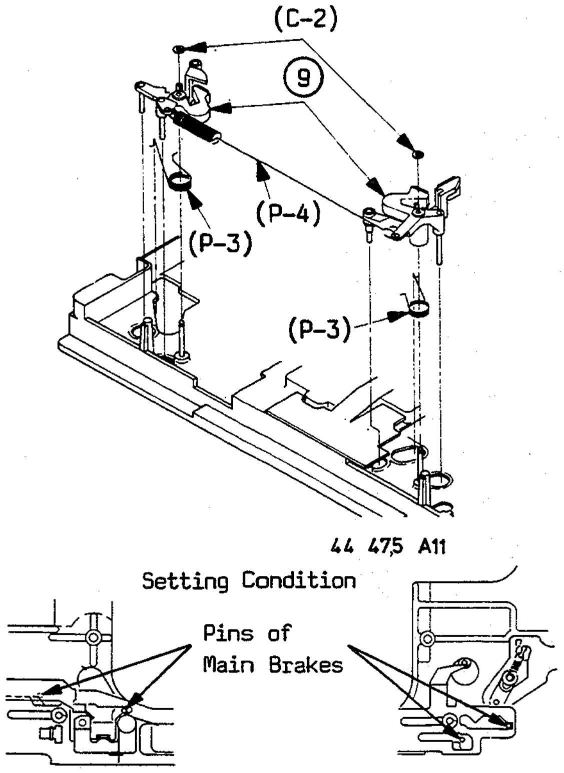

(C-2)
⑨
(P-4)
(P-3)
(P-3)
44 475 A11
Setting Condition
Pins of
Main Brakes

Fig. DM5

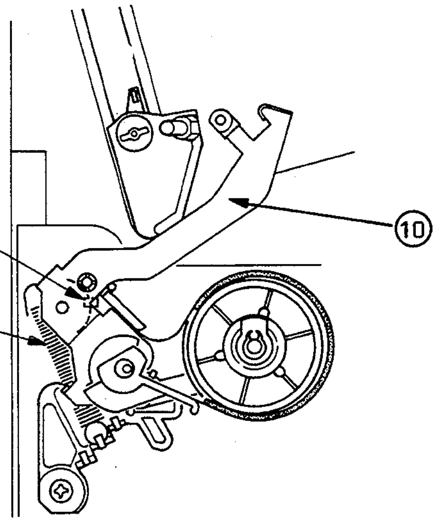


Fig. DM6

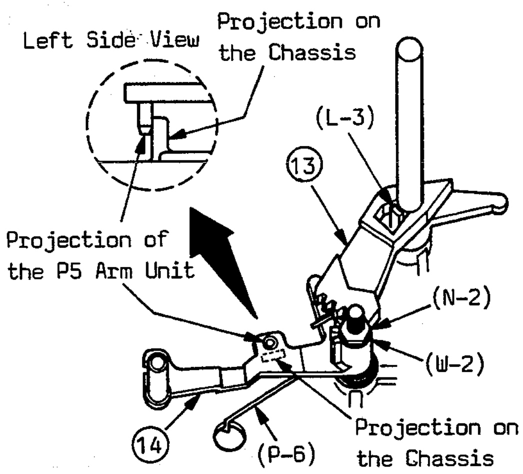

Left Side View
Projection on
the Chassis
(L-3)
⑬
Projection of
the P5 Arm Unit
(N-2)
(W-2)
⑭
(P-6)
Projection on
the Chassis

Fig. DM7

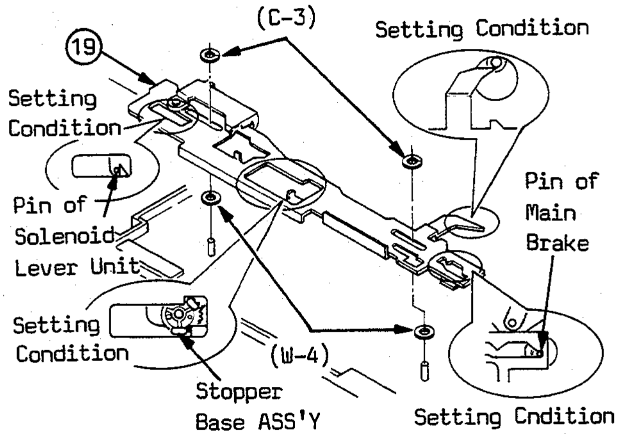

(C-3)
Setting Condition
⑲
Setting
Condition
Pin of
Solenoid
Lever Unit
Pin of
Main
Brake
Setting
Condition
(W-4)
Stopper
Base ASS'Y
Setting Cndition

Fig. DM9

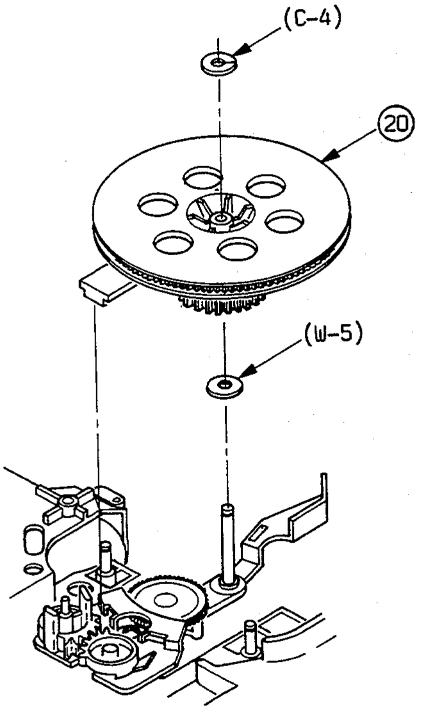


Fig. DM10

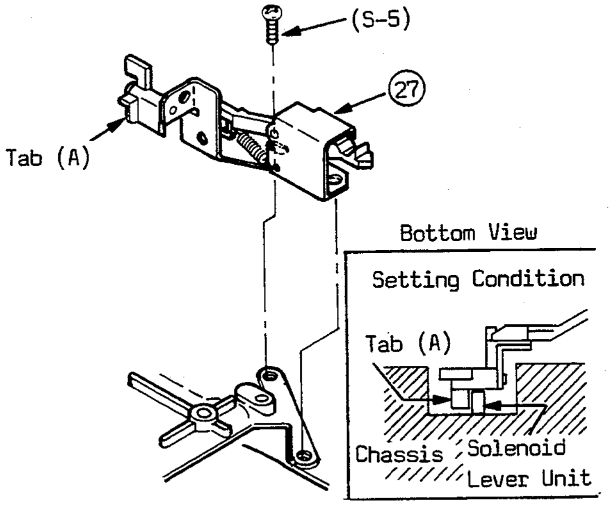

(S-5)
27
Tab (A)
Bottom View
Setting Condition
Tab (A)
Chassis
Solenoid
Lever Unit

Fig. DM13

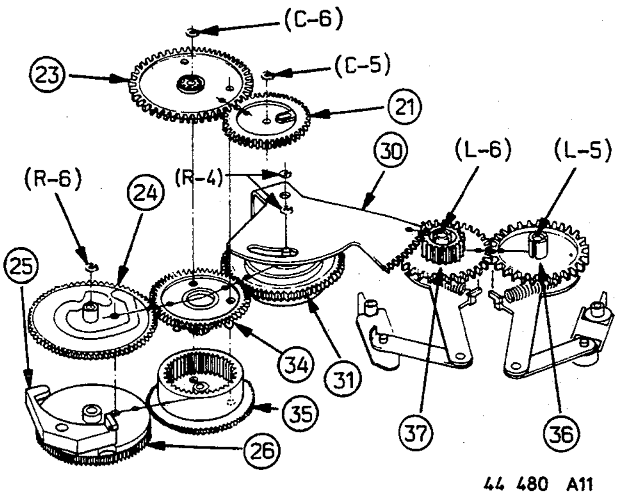

(C-6)
23
(C-5)
21
30
(L-6)
(L-5)
(R-6)
24
(R-4)
25
34
31
35
37
36
26
44 480 A11

Fig. DM11

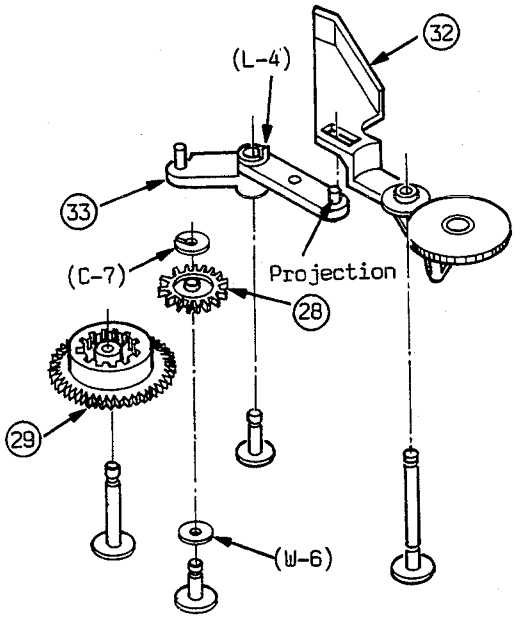

32
(L-4)
33
(C-7)
Projection
28
29
(W-6)

Fig. DM14

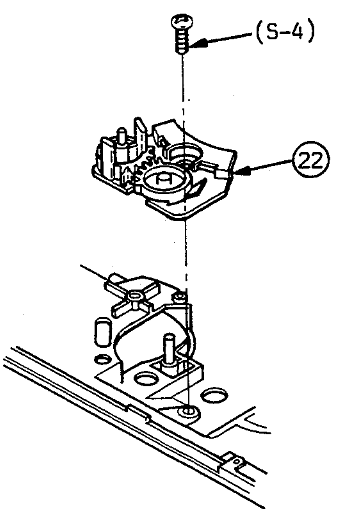


Fig. DM12

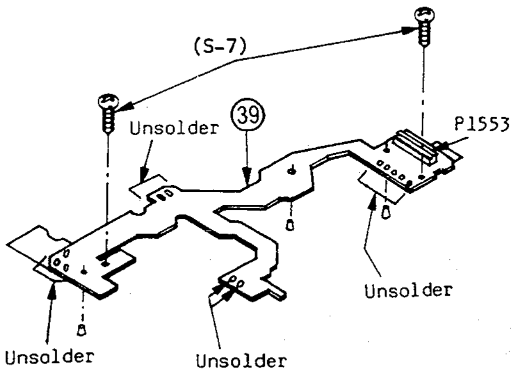

(S-7)
Unsolder
39
P1553
Unsolder
Unsolder
Unsolder

Fig. DM15

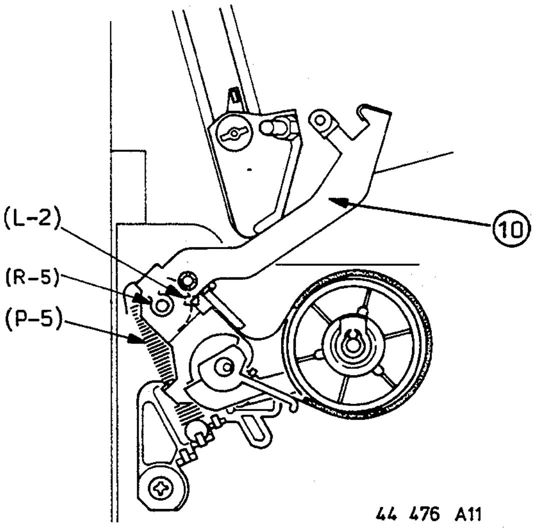

(L-2)
(R-5)
(P-5)
10
44 476 A11

Fig. DM17

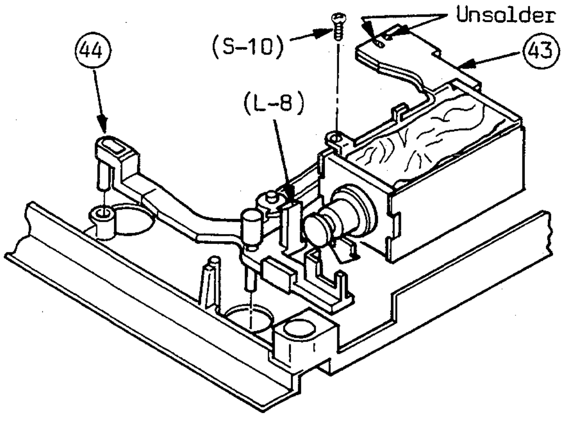

44
(S-10)
Unsolder
43
(L-8)

Fig. DM16

Reference notes in the disassembly chart:

1. Wiggle it sideways to proprly seat the pressure roller arm unit.
2. Cut washers are not reuseable.
   If removed, install a new one.
3. Install the P5 arm unit so that the projection of the P5 arm unit seats in front of the projection on the chassis as shown in Fig. DM7.
4. Install the cam follower arm unit so that the pin on the cam follower meets the inner slot of the main cam gear.
5. When reinstalling the supply and take-up reel tables, clean the rotating surface of them with a soft cloth.
6. When reinstalling the V stopper (L,R), fit the V stopper (L,R) to the chassis by turning it clockwise.
   And then, tighten the screws in order indicated in the diagram. (refer to Fig. DM1)
7. Ensure the tape tension arm is positioned as shown in Fig. DM1 for STOP mode.

3.1 CASSETTE COMPARTMENT

A. Right Side

First, remove the cassette compartment from chassis.
This procedure starts with the condition that the cassete compartment top plate and cassette holder unit have been removed. When reassembling, perform the step(s) in the reverse order.

					REMOVAL		INSTALLATION
STEP No.	START No.	PART	POS.		Fig. No.	REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER	ADJUSTMENT CONDITION
1	1	Cassette Guide -R-	234(3)	R	DA1	*3(L-1)	
2	2	Sub wiper arm -R-	232(3)	R	DA1	*Sub wiper Spring -R- *(L-2)	
3	3	Slider switch unit	221(3)	R	DA1	*3(L-3)	Align the movable projection (A) and (B)
4	4	Down support lever	222(3)	R	DA1	*(L-4)	
5	1,2,3	Rack Ass'y	224(3)	R	DA1		(+) Align the Triangle Marks

List of Abbreviations:
R = Right; 3(L-1) = Locking Clip (L-1)
(+): Refer to Exploded View for Lubrication information.

B. Left Side

					REMOVAL		INSTALLATION
STEP No.	START No.	PART	POS.		Fig. No.	REMOVE *UNHOOK/UNLOCK /RELEASE/UNPLUG/UNSOLDER	ADJUSTMENT CONDITION
1	1	Cassette Guide -L-	234(3)	L	DA2	*3(L-1)	
2	2	Wiper arm -L-	231(3)	L	DA2		
3	3	Opener lever	218(3)	L	DA2	*(L-2)	

List of Abbreviations:
L = Left; 3(L-1) = Locking Clip (L-1)

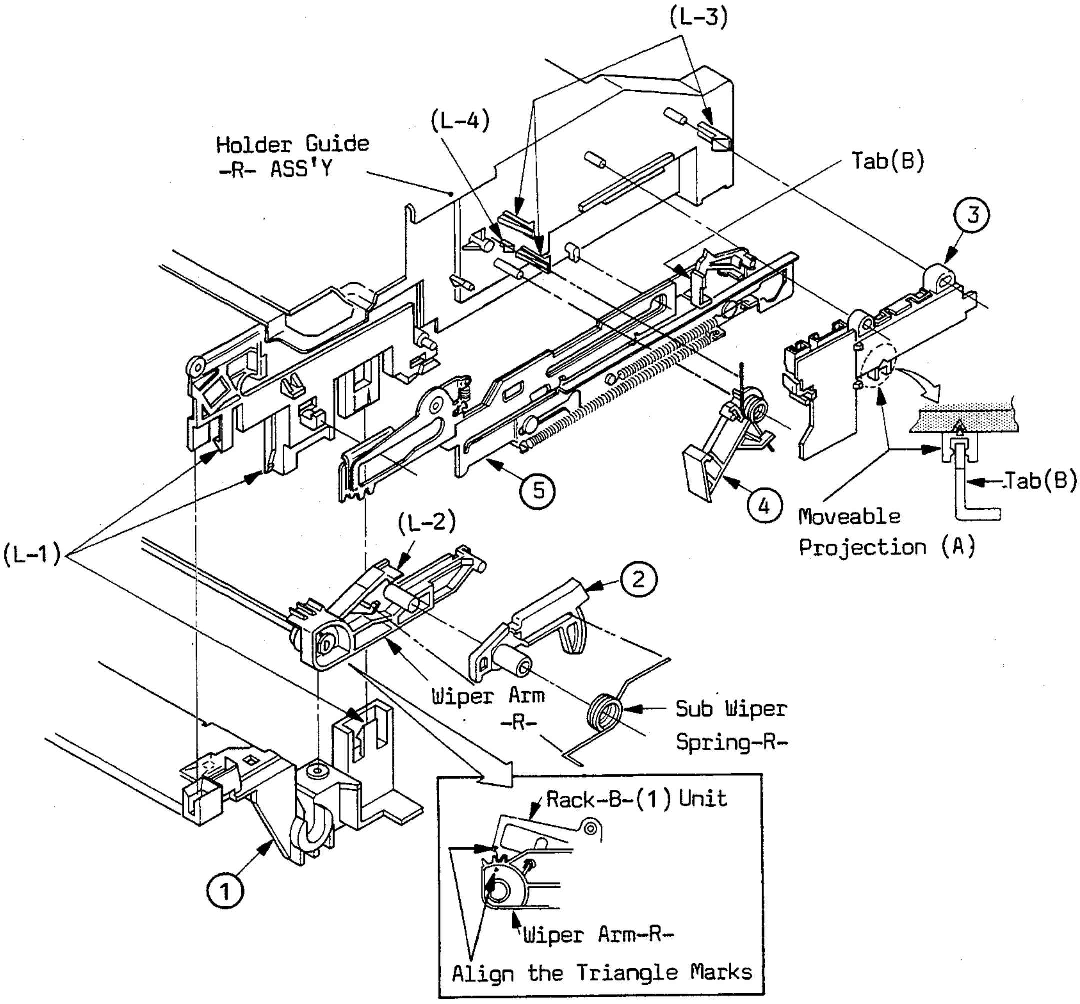

(L-3)
(L-4)
Holder Guide
-R- ASS'Y
Tab(B)
③
Tab(B)
Moveable
Projection (A)
⑤
④
(L-1)
(L-2)
②
Wiper Arm
-R-
Sub Wiper
Spring-R-
①
Rack-B-(1) Unit
Wiper Arm-R-
Align the Triangle Marks

Fig. DA1

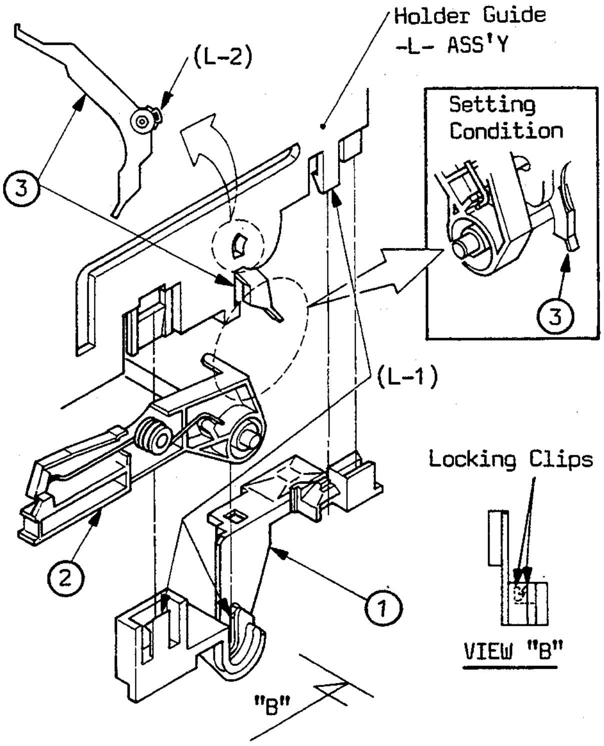

Holder Guide
-L- ASS'Y
(L-2)
③
Setting
Condition
③
(L-1)
Locking Clips
②
①
VIEW "B"
"B"

Fig. DA2

4 ASSEMBLY AND ADJUSTMENT PROCEDURES OF MECHANISM

The G-tape deck is mostly engaged to the system control circuit, through the mode select switch, pos. no. 55(1). Therefore the relation between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are not aligned properly, the unit will be unloaded or stopped.
It may result in damage mechanical or electrical parts.
The detail of mechanical condition will be described later.

Note:
The phase relevant gears have been provided with holes or a protection mark. For a proper alignment of the gears refer to Fig. 4-1 (bottom view) and Fig. 4-2 (top view).
This mechanical adjustment is performed in the STOP mode, while the numerically sequence shows the asembly procedure.

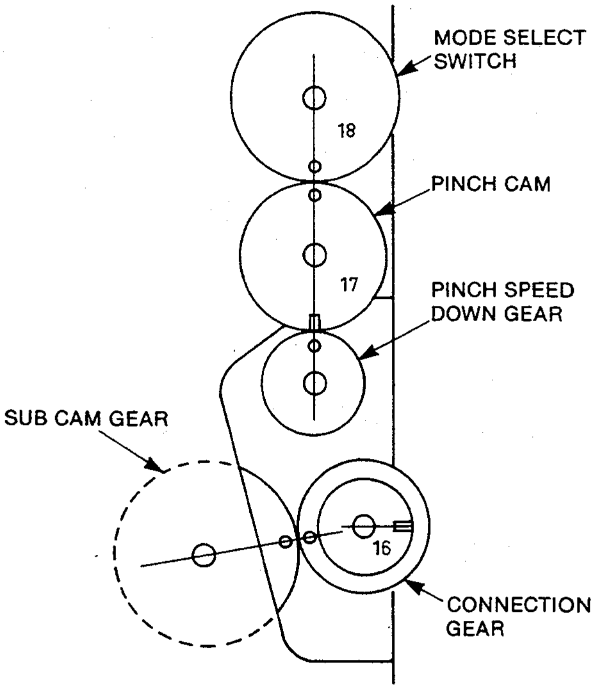

MODE SELECT SWITCH
18
PINCH CAM
17
PINCH SPEED DOWN GEAR
SUB CAM GEAR
16
CONNECTION GEAR

Fig. 4-1

44 460 B11

Bottom view of overall mechanical condition

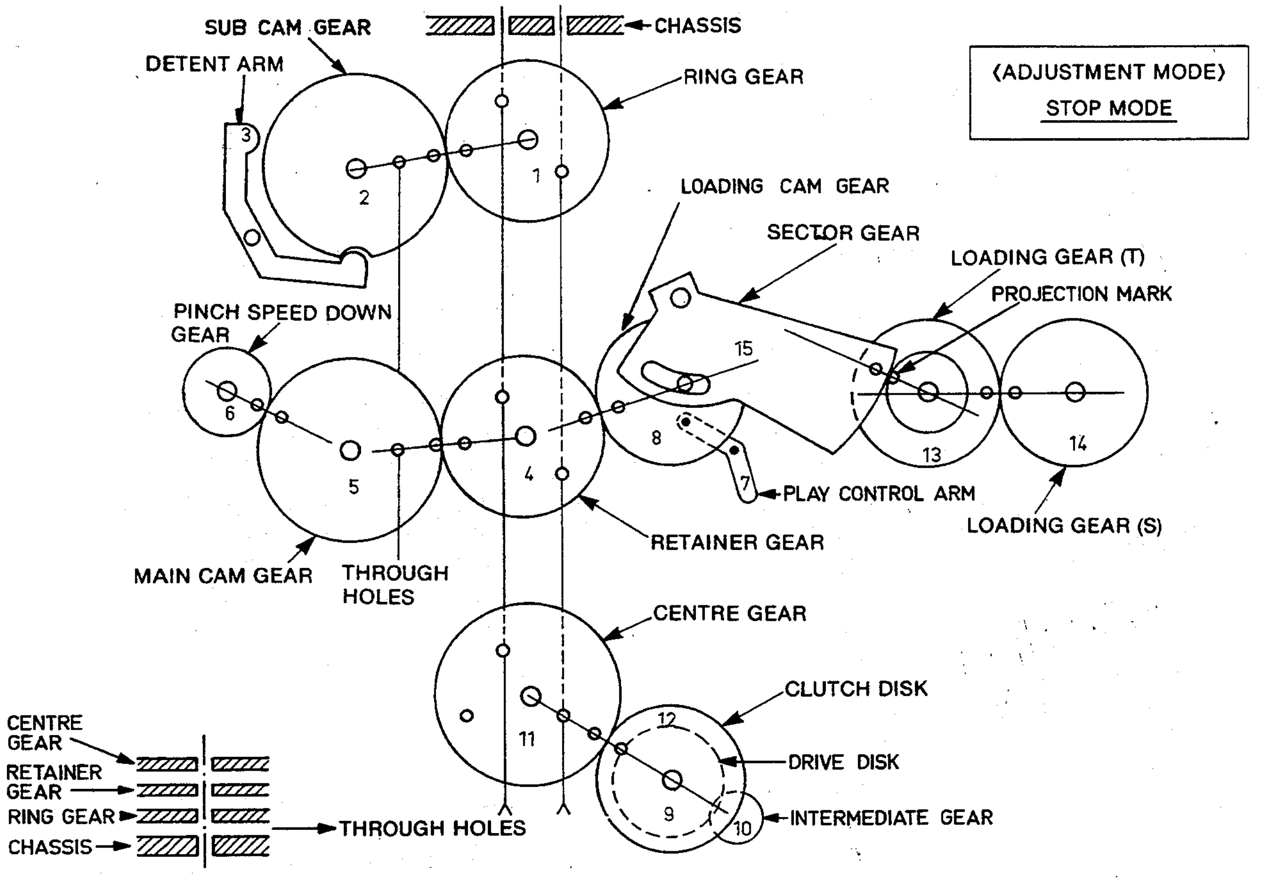

SUB CAM GEAR
CHASSIS
DETENT ARM
RING GEAR
(ADJUSTMENT MODE)
STOP MODE
3
2
1
LOADING CAM GEAR
SECTOR GEAR
LOADING GEAR (T)
PROJECTION MARK
PINCH SPEED DOWN GEAR
15
6
5
4
8
7
13
14
PLAY CONTROL ARM
LOADING GEAR (S)
RETAINER GEAR
MAIN CAM GEAR
THROUGH HOLES
CENTRE GEAR
CLUTCH DISK
12
11
DRIVE DISK
9
10
INTERMEDIATE GEAR
CENTRE GEAR
RETAINER GEAR
RING GEAR
CHASSIS
THROUGH HOLES

Fig. 4-2

44 459 C1

Top view of overall mechanical condition

4.1 Assembly procedures of sub cam gear, ring gear and detent arm

- Install ring gear pos. no. 120(2) so that the hole on ring gear is exactly in line with the hole of chassis as shown in Fig. 4-3.
- Install sub cam gear pos. no. 112(2) so that the hole on sub cam gear is exactly in line with the hole on chassis, at the same time, the small hole (located just outside of large hole) on sub cam gear is exactly in line with the hole on ring gear.
- Install detent arm, pos. no. 110(2).

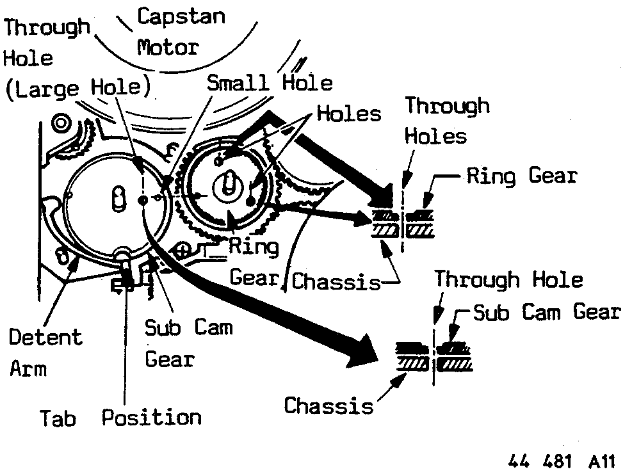

Through Hole (Large Hole)
Capstan Motor
Small Hole
Holes
Through Holes
Ring Gear
Ring Gear
Chassis
Through Hole
Sub Cam Gear
Detent Arm
Sub Cam Gear
Tab Position
Chassis
44 481 A11

Fig.4-3

4.2 Assembly procedures of main cam gear and pinch speed down gear

- Install pinch speed down gear pos. no. 64(1) from top side of chassis.
- Install main cam gear pos. no. 111(2) on to sub cam gear pos. no. 112(2) so that the small hole on main cam gear is exactly in line with the small hole of pinch speed down gear.
  And the large hole on main cam gear is exactly in line with the large hole of sub cam gear and the hole on the chassis, as shown in Fig. 4-4.
  To facilitate aligning the three holes use a small hex wrench or a matal pin.

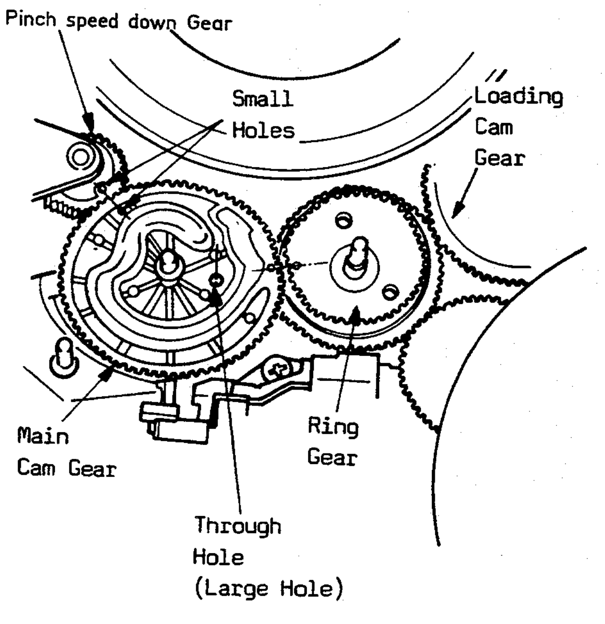

Pinch speed down Gear
Small Holes
Loading Cam Gear
Main Cam Gear
Ring Gear
Through Hole (Large Hole)
44 482 B11

Fig.4-4

4.3 Assembly procedures of loading cam gear and retainer gear

- Install loading cam gear pos. no. 142(2) so that the end of sub loading arm pos. no. 39(1) comes to rift A of loading cam gear as shown in Fig. 4-5.

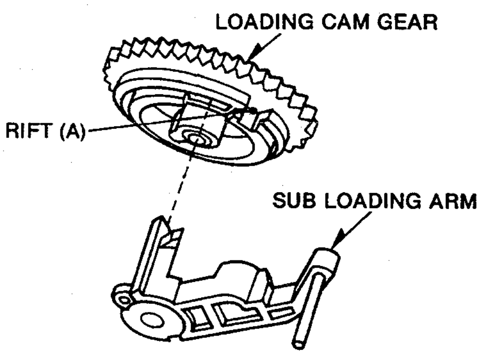

LOADING CAM GEAR
RIFT (A)
SUB LOADING ARM

Fig.4-5

- Install retainer gear pos. no. 114(2) on to the ring gear so that the hole of the retainer gear is exactly in line with the hole of main cam gear, at this time, this hole of retainer gear also is exactly in line with the hole of ring gear, and the hole on the chassis.
  Now, another hole of retainer gear is exactly in line with the hole of loading cam gear as shown in Fig. 4-6.
  To facilitate aligning the holes use a small hex wrench or a matal pin.

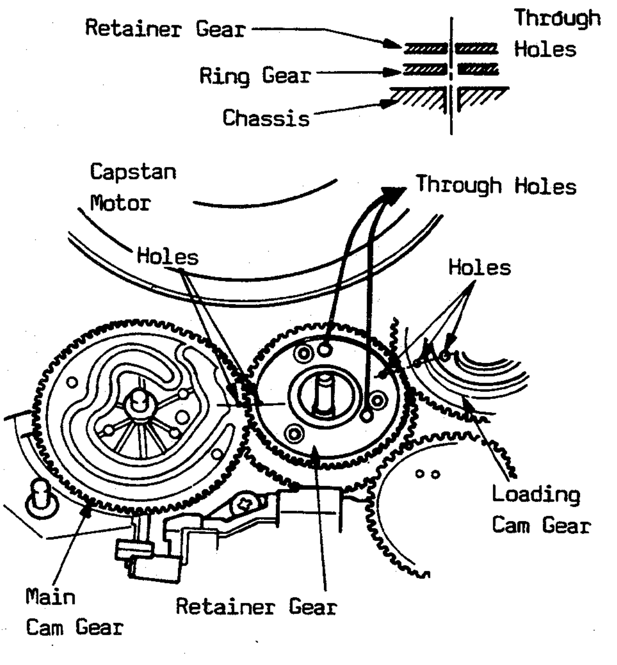

Retainer Gear
Ring Gear
Chassis
Through Holes
Capstan Motor
Through Holes
Holes
Holes
Loading Cam Gear
Main Cam Gear
Retainer Gear
44 483 B11

Fig.4-6

4.4 Assembly procedures of centre gear

- Install centre gear pos. no. 113(2) on to retainer gear pos. no. 114(2) so that the hole of centre gear is exactly in line with the hole of retainer gear, ring gear and the hole in the chassis, see Fig. 4-7. At this time, another hole of the centre gear is exactly in line with the small hole of clutch disk pos. 116(2), see Fig. 4-7. then insert cut washer pos. no. 100(2).

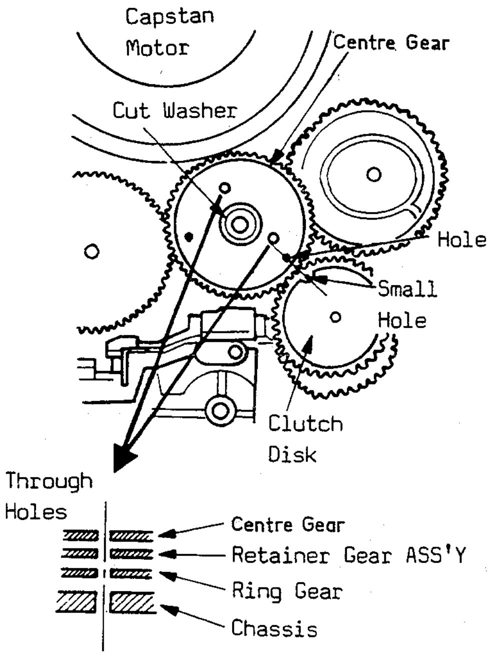

Capstan Motor
Centre Gear
Cut Washer
Hole
Small Hole
Clutch Disk
Through Holes
Centre Gear
Retainer Gear ASS'Y
Ring Gear
Chassis

Fig.4-7 44 484 B11

4.5 Assembly procedures of main lever (1) unit and cam follower arm unit

- Install cam follower arm unit pos. no. 109(2) so that the pin of cam follower arm insert to the groove of main cam gear then insert a retaining ring (5322 530 74076).
- Install main lever unit (1) pos. no. 103(2) unit and then insert cut washers pos. no. 100(2) as shown in Fig. 4-8.

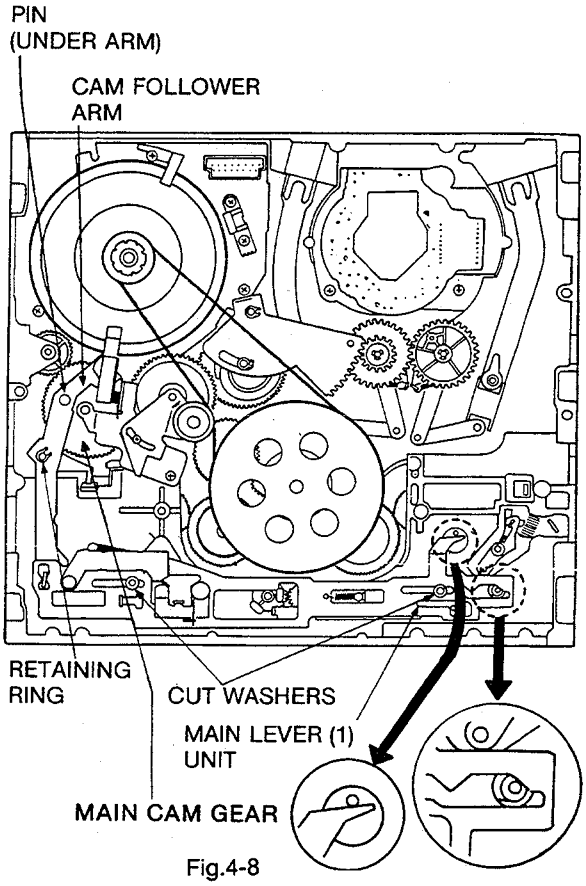

PIN (UNDER ARM)
CAM FOLLOWER ARM
RETAINING RING
CUT WASHERS
MAIN LEVER (1) UNIT
MAIN CAM GEAR

Fig.4-8

4.6 Assembly procedures of loading gear (T), loading gear (S) sector gear and tension roller

- Set the P2 and P3 posts to unloading position, then install the loading gear (T) pos. no. 138(2) and (S) pos. no. 143(2) so that the hole of loading gear (T) is exactly in line with the hole of loading gear (S), see Fig. 4-9.
- Install sector gear pos. no. 141(2) so that the hole of sector gear is exactly in line with the projection mark on loading gear (T). Then insert the retaining rings.
- Install tension roller unit pos. no. 108(12) and SS brake unit pos. no's 105-107, then tighten the screws.

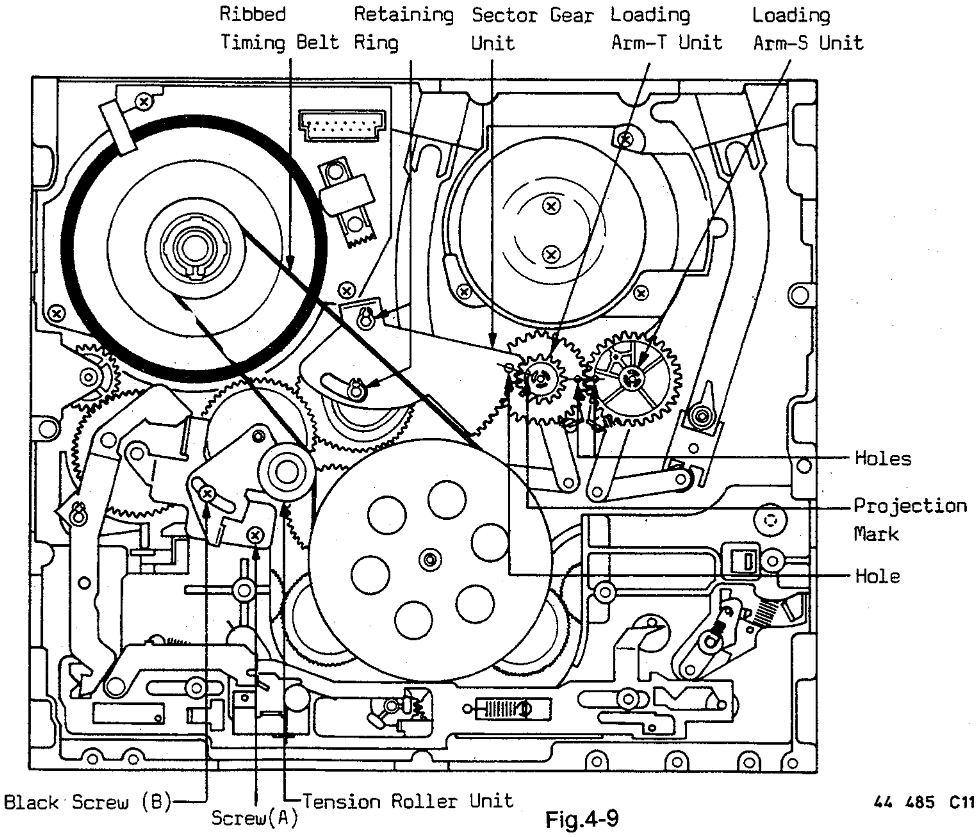

Ribbed Timing Belt
Retaining Ring
Sector Gear Unit
Loading Arm-T Unit
Loading Arm-S Unit
Holes
Projection Mark
Hole
Black Screw (B)
Screw(A)
Tension Roller Unit

Fig.4-9 44 485 C11

4.7 Assembly procedures of connection gear

Note:
Before this alignment, sub cam gear position (and positions of bottom side gears) must be in their correct alignment position for STOP mode as previously described.
Push down to seat the sector gear.
Install the connection gear pos. no. 65(1) so that the small hole of connection gear is exactly in line with the small hole of sub cam gear as shown in Fig. 4-10.

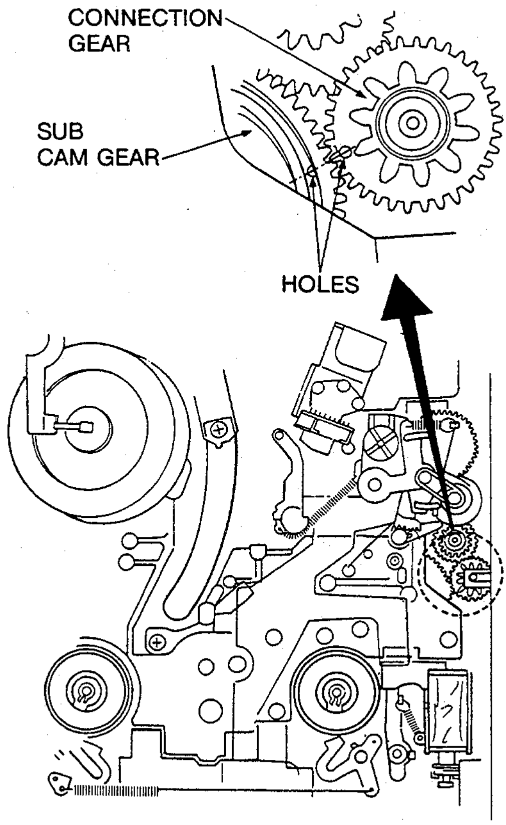

CONNECTION GEAR
SUB CAM GEAR
HOLES

Fig.4-10

4.8 Assembly procedures of mode select switch and P5 pull out sector gear

- Install mode select switch pos. no. 55(1) and tighten the screw, then solder the 5 solder portions.
- Install the P5 pull out sector gear so that the hole of the P5 pull out sector gear aligns with the cog of edge at P5 gear as shown in Fig. 4-11.

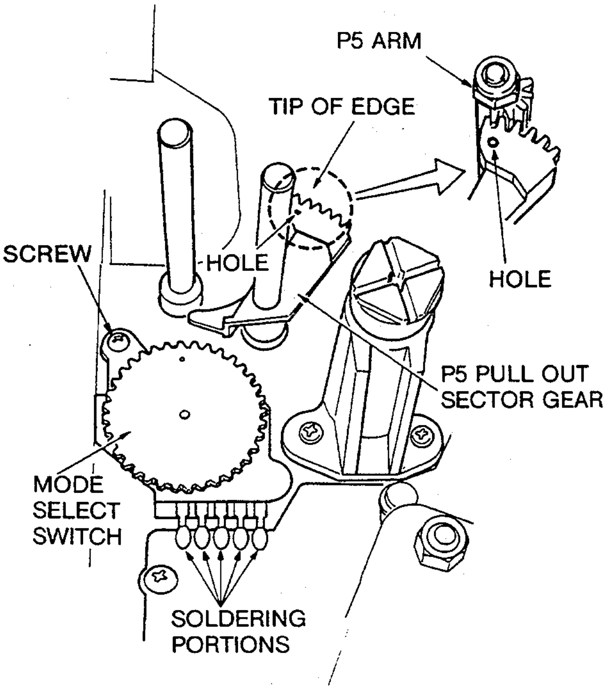

P5 ARM
TIP OF EDGE
SCREW
HOLE
HOLE
P5 PULL OUT SECTOR GEAR
MODE SELECT SWITCH
SOLDERING PORTIONS

Fig.4-11

4.9 Assembly procedures of pinch cam and pressure roller unit

- Push P5 arm unit clockwise until it stops and hold it in this position.
- install pinch cam pos. no. 51(1) so that the edge of P5 arm comes into the rift of pinch cam and the projection of pinch cam is exactly in line with the hole of pinch speed down gear, at this time, the hole of mode select switch pos. no. 55(1) is exactly in line with the hole of pinch cam as shown in Fig. 4-12.
- Install the pressure roller unit, then install the pinch cam cap.

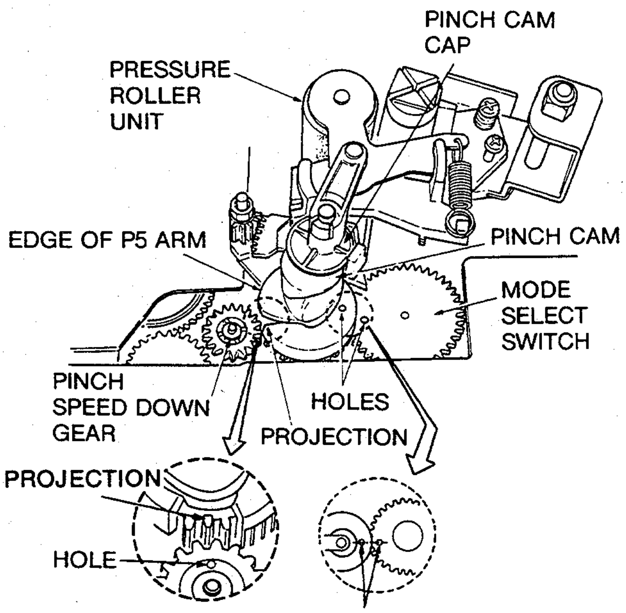

PINCH CAM CAP
PRESSURE ROLLER UNIT
EDGE OF P5 ARM
PINCH CAM
MODE SELECT SWITCH
PINCH SPEED DOWN GEAR
HOLES
PROJECTION
PROJECTION
HOLE

Fig.4-12

4.10 REINSTALLATION OF CASSETTE COMPARTMENT

When re-installing the cassette compartment, mechanical adjustment (alignment) should be performed for proper operation as follows.
And than, before reinstalling the cassette compartment ensure wiper arm (R) is aligned as shown in box, Fig. 4-13.

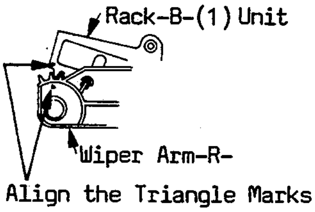

Rack-B-(1) Unit
Wiper Arm-R-
Align the Triangle Marks

Fig.4-13

A. Reinstalling the cassette compartment from EJECT position

1. Press the change lever pos. 122(2) to the direction indicated by arrow as shown in Fig. 4-14 (to release the lock).
2 Turn the capstan motor or centre pulley counter clockwise until the mechanism is placed fully into te EJECT position and maintain this position.

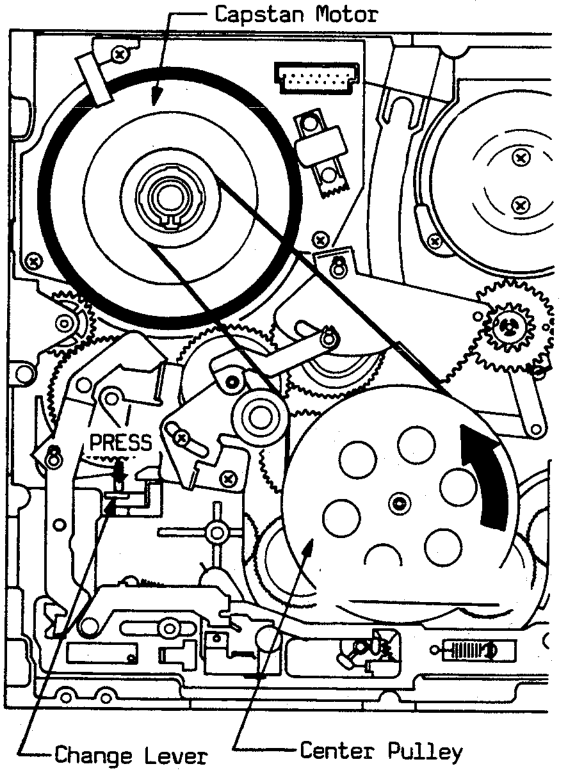

Capstan Motor
PRESS
Change Lever
Center Pulley
44 470 B11

Fig.4-14

3. Memorize the position of the marking or hole on the connection gear (located on top right side, as shown in Fig. 4-15). Turn the capstan motor clockwise while watching the connection gear so that marking or hole of the connection gear rotates one revolution.

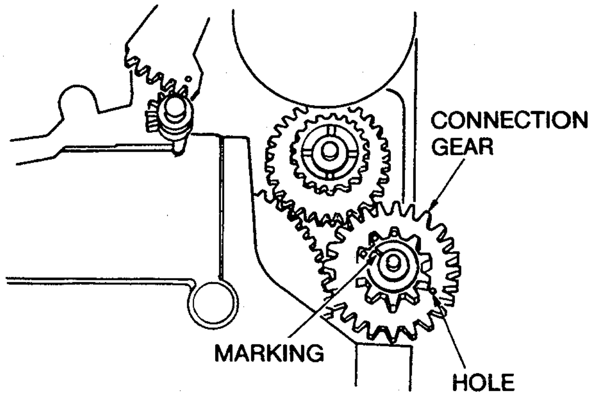
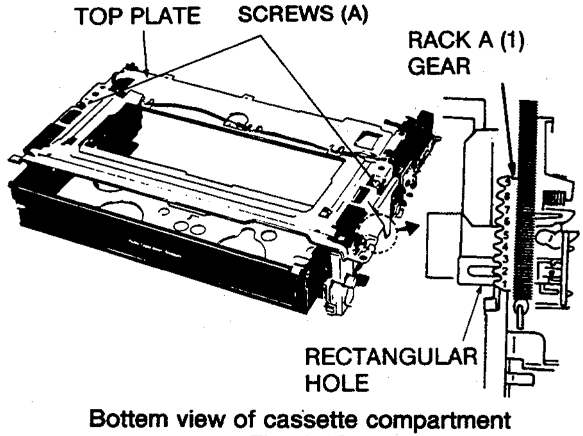

CONNECTION GEAR
MARKING
HOLE

Fig.4-15

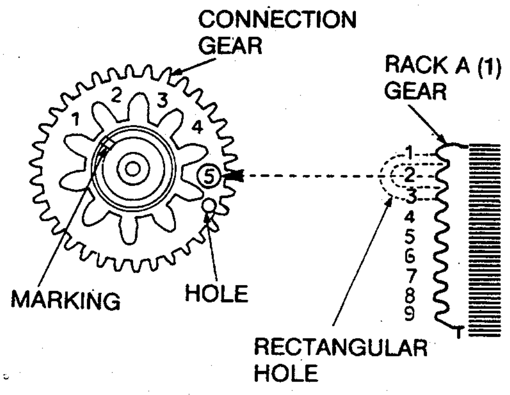
4. Slide the cassette holder (with wiper arm (R), see Fig. 4-20) just a little so that the second tooth of rack A (1) gear (located on the bottom side of cassette compartemt) comes to center of the rectangular hole as shown in Fig. 4-16

5. Remove the 2 screws (A) and carefully remove the top plate form the cassette compartment (so connection gear and rack A (1) gear can be seen when reinstalling). Fig. 4-16 shows the bottom view of the cassette compartment.

6. Slowly install the cassette compartment to chassis so that the second tooth of rack a (1) gear fits into the fifth slot of the conection gear as shown in Fig. 4-17. If it does not fit, slide the cassette holder a little bit to mesh the gear teeth.


TOP PLATE
SCREWS (A)
RACK A (1) GEAR
RECTANGULAR HOLE

Bottom view of cassette compartment
Fig. 4-16


CONNECTION GEAR
RACK A (1) GEAR
1
2
3
4
5
MARKING
HOLE
1
2
3
4
5
6
7
8
9
RECTANGULAR HOLE

Top view of cassette compartment

7. Reinstall the top plate and tighten the 2 screws (A), then tighten the 4 screws (B) and (C) as shown in Fig. 4-18
   Re-connect the flexible cable to P1508.

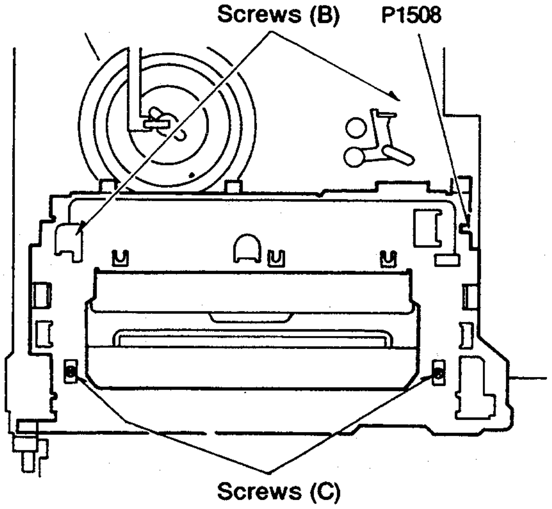


Fig. 4-18

Note:
If mechanism doesn't work correctly, carefully repeat above procedure of chapter 4.10 "Reinstallation of cassette compartment".

B. Reinstallation of cassette compartment from STOP (FF/REW) position

1. Set the mechanism into STOP (FF/REW) position by means of turning the capstan motor (refer to chapter 1.5).
2. Remove the 2 screws (A) as shown in Fig. 4-16.
3. Take the top plate out.
4. Take out the cassette holder unit as shown in Fig. 4-19.

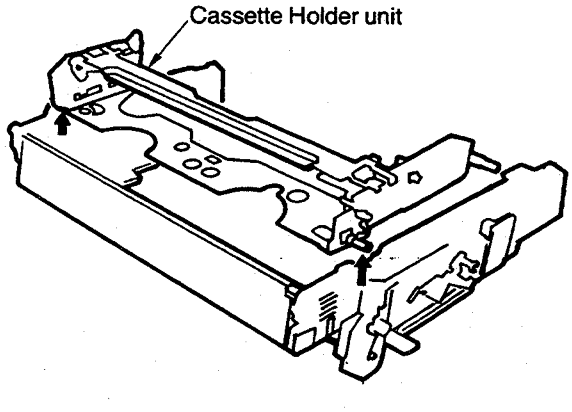


Fig. 4-19

5. Press the sub wiper arm (R) to direction indicated by the arrow as shown in Fig. 4-20 so that the sub wiper arm (R) comes to cassette down position completely and hold this position.

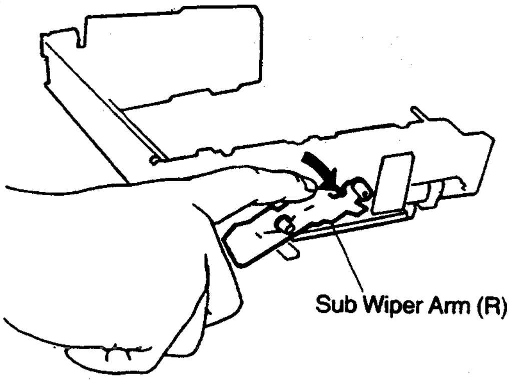


Fig. 4-20

6. Reinstall the cassette compartment (without cassette holder) to chassis so that the first tooth of rack gear A (1) aligns with the marking slot of the connection gear as shown in Fig. 4-21
7. Tighten the 4 screws (D) as shown in Fig. 4-22.
8. Press the change lever and turn the capstan motor counter clockwise until the mechanism is placed in the EJECT position as shown in Fig. 4-14.
9. Reinstall the cassette holder unit in the reverse order of item 4, Fig. 4-19.
10. Reinstall the top plate in the reverse order of item 3, Fig. 4-16.

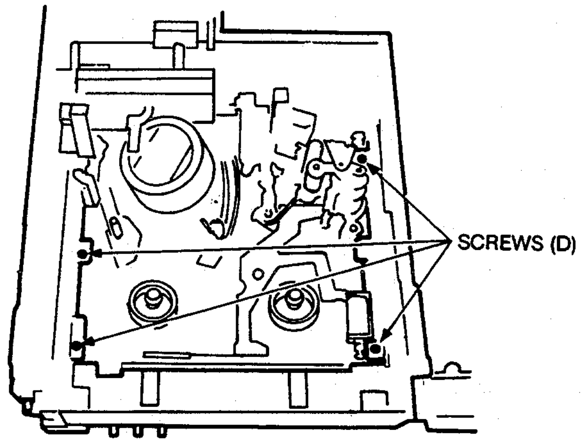


Fig. 4-22

Fig. 4-23 shows the right side of the cassette compartment, with alignments marks

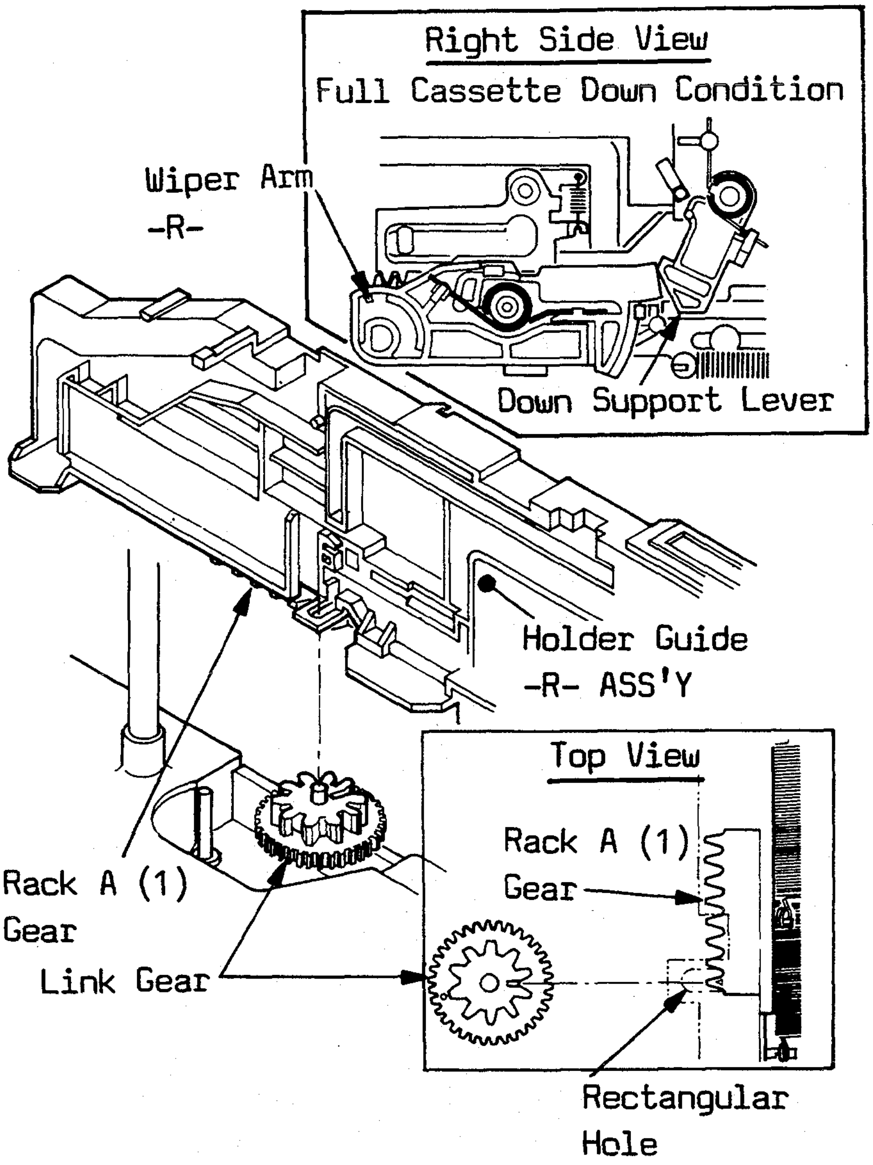
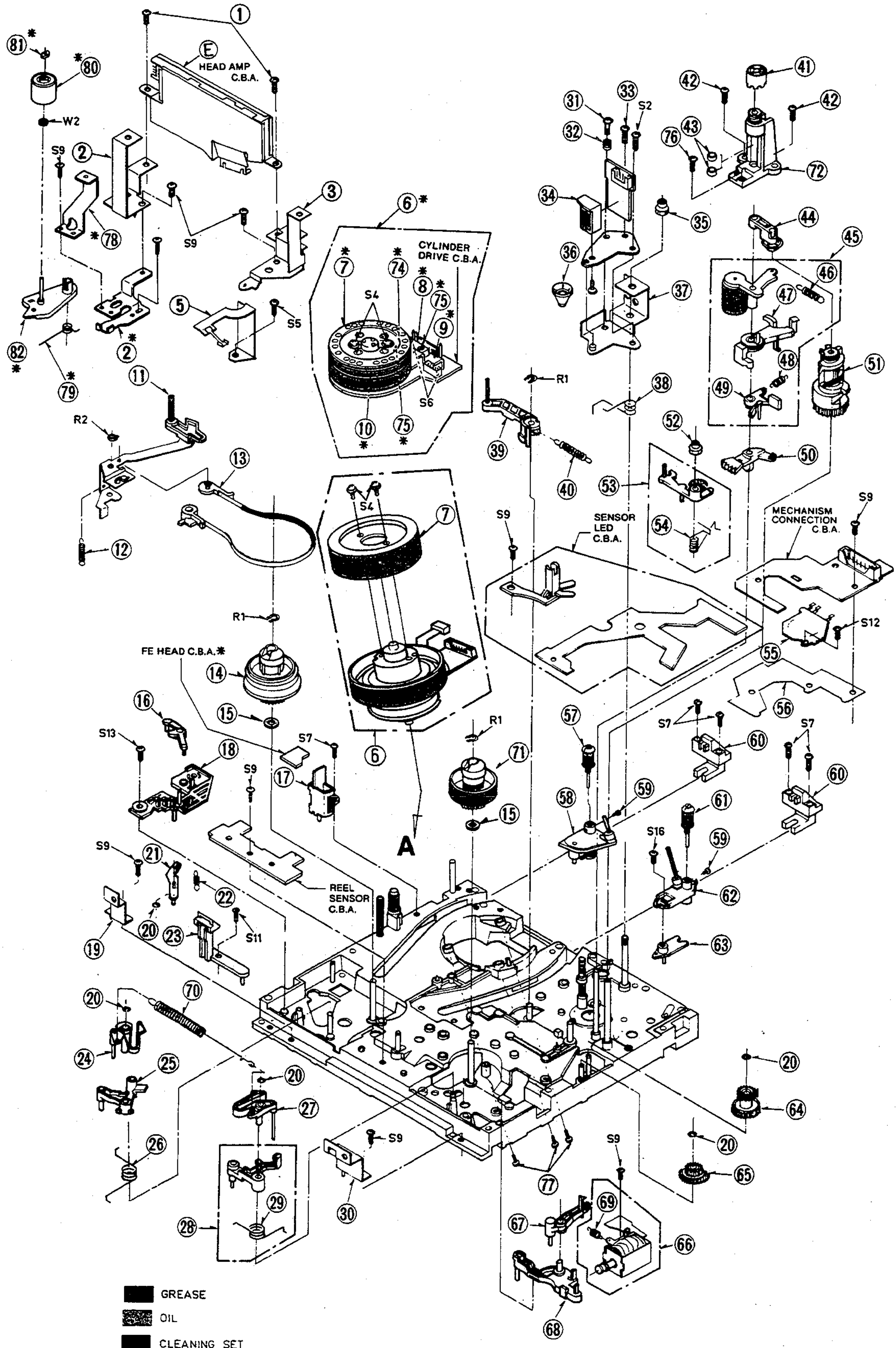

Right Side View
Full Cassette Down Condition
Wiper Arm
-R-
Down Support Lever
Holder Guide
-R- ASS'Y
Top View
Rack A (1)
Gear
Rack A (1)
Gear
Link Gear
Rectangular
Hole

Fig.4-21

5. EXPLODED VIEWS AND PARTSLIST

5.1 Exploded view 1 (top view)


①
Ⓔ
HEAD AMP C.B.A.
(81)*
*(80)
W2
S9
②
*(78)
S9
③
⑤
S5
(82)*
*(79)
②*
⑪
R2
⑫
⑬
⑥*
CYLINDER DRIVE C.B.A.
*⑦
*(74)
*⑧
*(75)
*⑨
S4
S6
*⑩
*(75)
S4
⑦
⑥
R1
FE HEAD C.B.A.*
⑭
⑮
⑯
S13
⑱
S7
S9
⑰
REEL SENSOR C.B.A.
A
R1
(71)
⑮
S9
㉑
㉒
⑲
⑳
㉓
S11
⑳
(70)
㉔
㉕
⑳
㉗
㉖
㉘
㉙
㉚
S9
(77)
㉛
㉜
㉝
S2
(76)
(43)
(42)
(41)
(42)
(72)
㉞
㉟
㊱
㊲
(44)
(45)
(46)
(47)
(48)
(49)
(51)
(50)
R1
㊳
㊴
㊵
(52)
(53)
(54)
S9
SENSOR LED C.B.A.
MECHANISM CONNECTION C.B.A.
S9
S12
(55)
(56)
(57)
S7
(60)
S7
(60)
(58)
(59)
(61)
S16
(59)
(62)
(63)
⑳
(64)
⑳
(65)
S9
(69)
(67)
(66)
(68)

■ GREASE

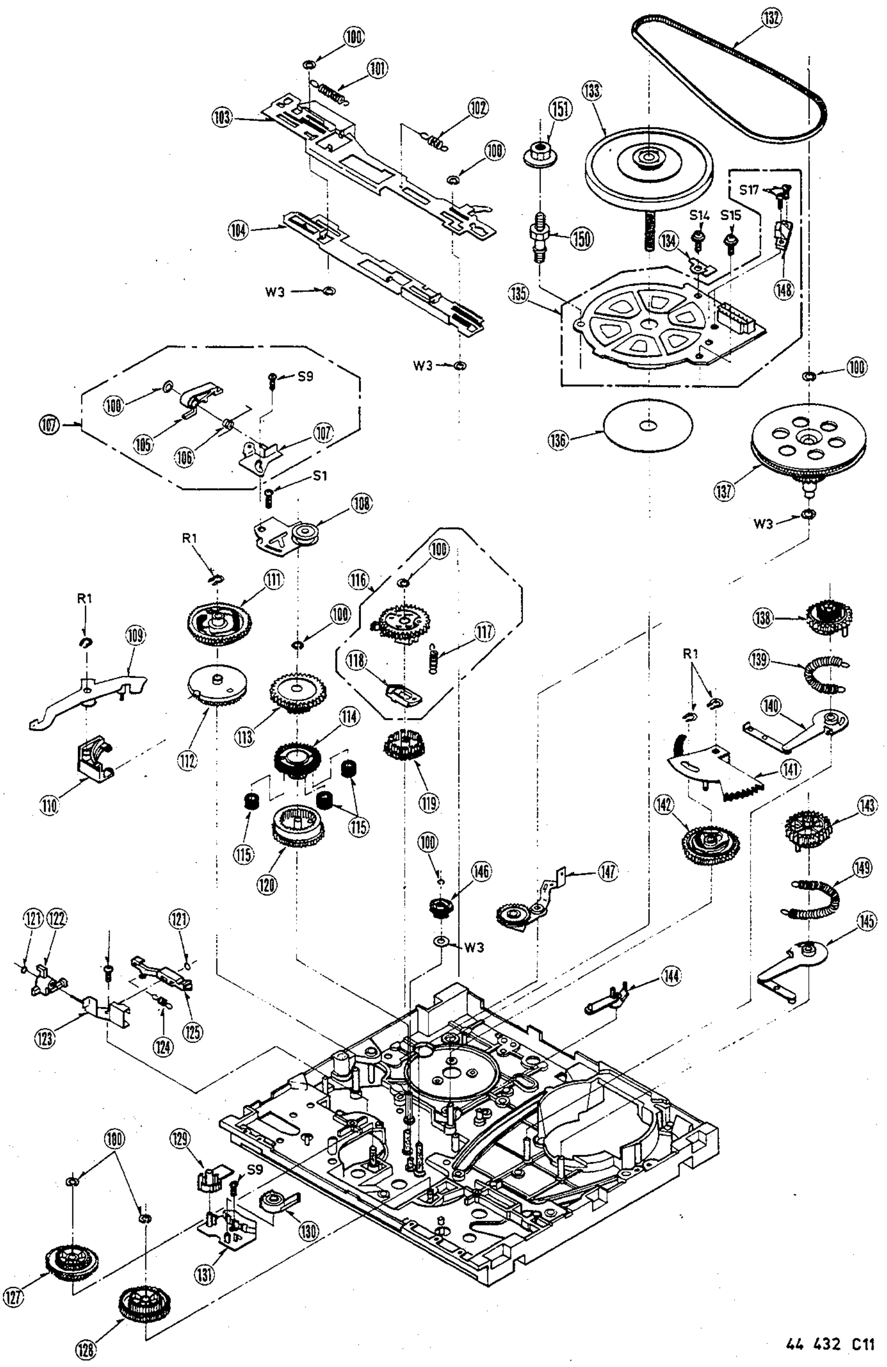
▨ OIL

■ CLEANING SET
4822 389 50106 FREON TMS (100ml)
4822 466 91591 FIBRE FREE TISSUE (10pcs)

* ONLY USED IN DMS 4/2

44 434 C11

5.2 Exploded view 2 (bottom view)

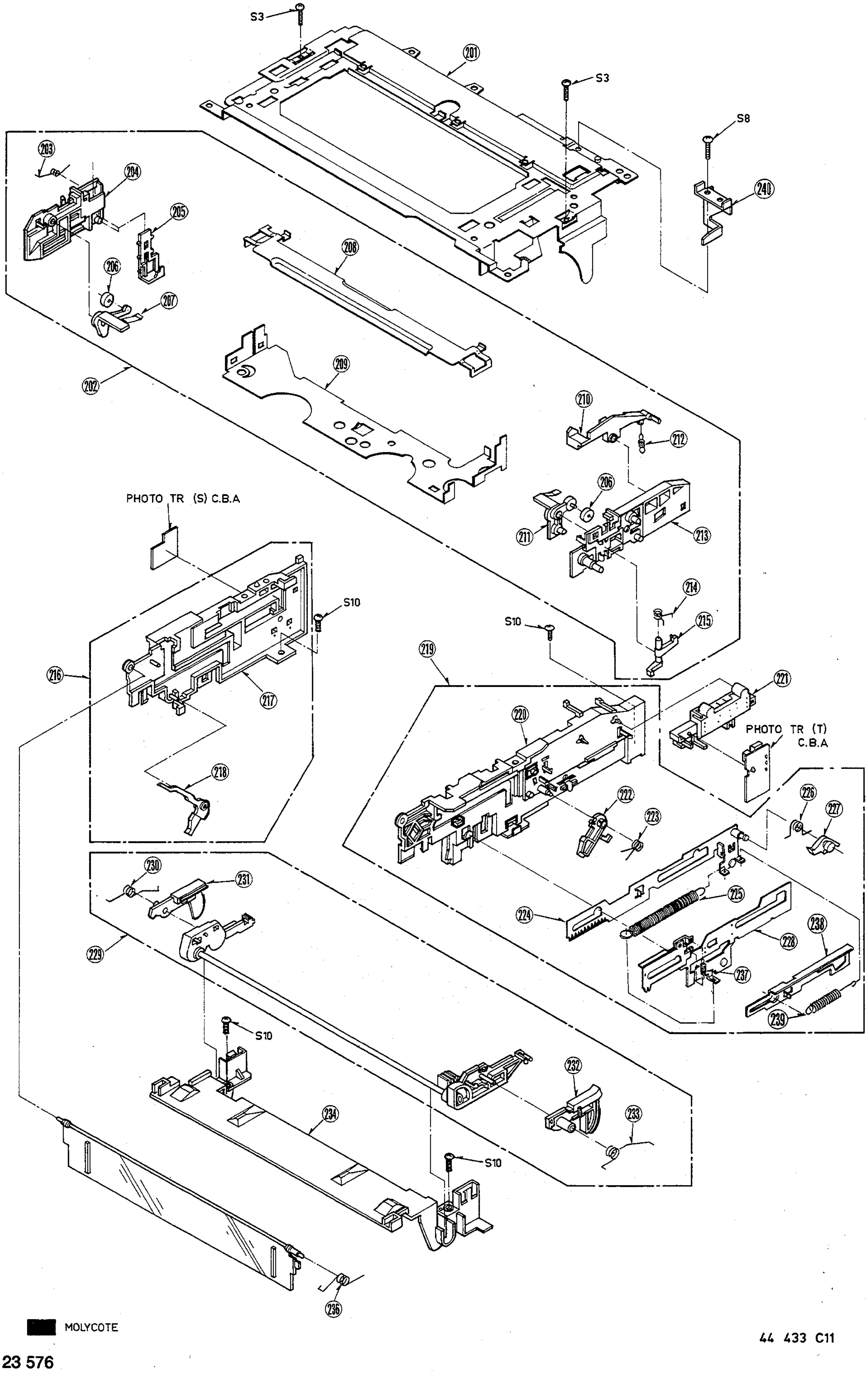

100
101
103
102
100
151
133
132
S17
S14
S15
104
150
134
148
W3
135
W3
100
S9
107
100
105
106
107
136
137
S1
W3
108
R1
R1
111
116
100
100
117
109
118
138
139
R1
140
112
113
114
119
110
141
115
115
120
142
143
100
146
147
149
121
122
121
W3
145
144
123
124
125
100
129
S9
130
131
127
128
44 432 C11

■ GREASE

▨ OIL

■ CLEANING SET
4822 389 50106 FREON TMS (100ml)
4822 466 91591 FIBRE TISSUE (10pcs)

5.3 Exploded view 3 (cassette–compartiment)


S3
201
S3
S8
240
203
204
205
206
207
202
208
209
210
212
206
211
213
214
215
PHOTO TR (S) C.B.A
S10
216
217
218
S10
219
220
221
PHOTO TR (T) C.B.A
222
223
226
227
224
225
228
238
237
239
230
231
229
S10
232
233
234
S10
236

■ MOLYCOTE

5.4 Partslist

1(1)	4822 502 13241	Screw
2(1)	4822 403 53564	Mount angle (L)
2(1)	4822 403 53724	Mount angle (L) (***)
3(1)	4822 403 53565	Mount angle (R)
5(1)	4822 466 82418	Earth plate
5(1)	4822 403 53727	Earth plate
6(1)	4822 691 20499	Scanning unit (*)
6(1)	4822 691 20508	Scanning unit (**)
6(1)	4822 691 20505	Scanning unit (***)
6(1)	4822 361 21264	Scanning unit (#)
6(1)	4822 361 21263	Scanning unit (##)
7(1)	4822 691 20501	Upper cylinder (*)
7(1)	4822 691 20509	Upper cylinder (**)
7(1)	4822 691 20506	Upper cylinder (***)
7(1)	4822 691 20527	Upper cylinder (#)
7(1)	4822 691 20528	Upper cylinder (##)
8(1)	4822 259 90132	Element (***)
9(1)	4822 403 53723	Main holder (***)
10(1)	4822 466 82419	Cover (***)
11(1)	4822 403 53614	Tension arm
12(1)	4822 492 32912	Tension spring
13(1)	4822 401 11201	Tension band
14(1)	4822 528 10717	Suppy reel
15(1)	4822 532 52057	Reel washer (0,2mm)
15(1)	4822 532 52058	Reel washer (0,3mm)
15(1)	4822 532 52055	Reel washer (0.5mm)
16(1)	4822 403 53615	Tension release arm
17(1)	4822 249 20076	FE head
18(1)	4822 403 53605	Tansion arm base
19(1)	4822 403 53562	Mount angle (L)
20(1)	4822 532 52054	Cut washer
21(1)	4822 403 53616	Release arm
22(1)	4822 492 32916	Release spring
23(1)	4822 271 30638	Safety switch
24(1)	4822 403 53622	Main brake unit (S)
25(1)	4822 403 53621	Soft brake unit (S)
26(1)	4822 492 42296	Spring
27(1)	4822 403 53623	Take up main brake (T)
28(1)	4822 403 53619	Take up soft brake (T)
29(1)	4822 492 42295	Spring
30(1)	4822 403 53563	Mount angle (R)
31(1)	4822 502 13168	Adjust screw
32(1)	4822 492 52043	Adjust spring
33(1)	4822 502 11834	Azimuth adjust screw
34(1)	4822 249 10373	A/C head
35(1)	4822 505 10945	Nut (nylon)
36(1)	4822 505 10944	Adjust nut
37(1)	4822 403 53601	Head base unit
38(1)	4822 492 42297	A/C head spring
39(1)	4822 403 53608	Sub loading arm
39(1)	4822 403 53842	Sub loading arm (#)(##)
40(1)	4822 492 32907	Sub post spring
41(1)	4822 502 13171	Thrust screw
42(1)	4822 502 13167	Housing screw
43(1)	4822 532 52053	Oil seal
44(1)	4822 403 53596	Pinch cam cap
45(1)	4822 528 81245	Pressure roller
46(1)	4822 492 32914	Pin pressure spring
47(1)	4822 403 53582	Pinch lift arm
48(1)	4822 492 32915	Release spring
49(1)	4822 403 53583	Pinch lift arm
50(1)	4822 522 32522	P5 sector gear
51(1)	4822 522 32525	Pinch cam
52(1)	4822 505 10737	Nut (nylon)
53(1)	4822 403 53609	P5 unit
54(1)	4822 492 70088	P5 spring
55(1)	4822 276 12496	Mode switch
56(1)	4822 403 53597	Shield plate
56(1)		not for (#)(##)!!
57(1)	4822 528 90699	Roller post unit
58(1)	4822 256 91349	Inclind base (S)
59(1)	4822 502 11831	Roller post screw
60(1)	4822 403 53571	post stopper
61(1)	4822 528 90698	Roller post unit
62(1)	4822 403 53602	Inclind base (T)
63(1)	4822 466 82389	Adjust plate
64(1)	4822 522 32529	Pinch speed down gear
65(1)	4822 522 32512	Connection gearrad
66(1)	4822 526 20151	Solenoid unit
67(1)	4822 403 53603	Kick rod unit
68(1)	4822 403 53569	Solenoid lever
69(1)	4822 492 32908	Kick rod spring
70(1)	4822 492 32913	Main brake spring
71(1)	4822 528 10718	Take up reel table
72(1)	4822 691 20483	Housing unit
74(1)	4822 255 40929	Cooling block (***)
75(1)	4822 502 13242	Screw (***)
76(1)	4822 502 13169	Screw
77(1)	4822 502 13243	Screw (***)
78(1)	4822 403 53725	Mount angle(***)
79(1)	4822 492 42324	Spring (***)
80(1)	4822 528 70578	Impedance rolle (***)
81(1)	4822 530 70449	Stopper (***)
82(1)	4822 403 53728	Impedance roller arm (***)
83(1)	4822 492 70087	Spring (***)
100(2)	4822 532 52054	Cut washer
101(2)	4822 492 32917	Release spring
102(2)	4822 492 70085	Lever spring
103(2)	4822 403 53604	Main lever
104(2)	4822 403 53594	Sub lever
105(2)	4822 403 53617	SS brake unit (*,**,***)
106(2)	4822 492 42303	SS brake spring (*,**,***)
107(2)	4822 403 53598	SS brake base (*,**,***)
107(2)	4822 403 53843	SS brake base(#)(##)
108(2)	4822 528 90697	Tension roller
109(2)	4822 403 53618	Cam follower arm
110(2)	4822 403 53581	Detent arm
111(2)	4822 522 32518	Main cam gear
112(2)	4822 522 32516	Sub cam gear
113(2)	4822 522 32519	Centre gear
114(2)	4822 522 32526	Retainer gear
115(2)	4822 522 32517	Planet gear
116(2)	4822 522 32521	Clutch disk (*,**,***)
116(2)	4822 522 32792	Clutch disk (#)(##)
117(2)	4822 492 32911	Clutch spring (*,**,***)
118(2)	4822 403 53561	Lock slide gear (*,**,***)
119(2)	4822 522 32513	Drive disk
120(2)	4822 522 32515	Ring gear
121(2)	4822 532 52052	Cut washer
122(2)	4822 403 53578	Change lever
123(2)	4822 403 53599	Release lever
124(2)	4822 492 32909	Release spring
125(2)	4822 403 53579	Release lever
127(2)	4822 522 32532	Take up real gear (T)
128(2)	4822 522 32527	Supply up real gear (S)
129(2)	4822 403 53577	Return lever (R)
130(2)	4822 403 53576	Return lever (L)
131(2)	4822 403 53572	Stopper base
132(2)	4822 358 30881	Timing belt
133(2)	4822 691 20484	Rotor unit
134(2)	4822 403 53568	Rotor stopper
135(2)	4822 691 20482	Stator unit
136(2)	4822 466 92285	Sub plate
137(2)	4822 528 81246	Centre pulley
138(2)	4822 522 32524	Loading gear (T)
139(2)	4822 492 32923	Loading spring

140(2)	4822 403 53612	Loading arm (T)
141(2)	4822 522 32531	Sector gear
142(2)	4822 522 32528	Loading cam gear
143(2)	4822 522 32523	Loading gear (S)
144(2)	4822 403 53575	Play control arm
145(2)	4822 403 53611	Loading arm (S)
146(2)	4822 522 32514	Intermediate gear
147(2)	4822 403 53613	Play–arm (*,**,***)
147(2)	4822 403 53841	Play–arm (⫲)(⫲⫲)
148(2)	4822 249 20075	FG head
149(2)	4822 492 32918	Loading spring
201(3)	4822 443 30737	Top plate
202(3)	4822 256 91348	Cassette holder (*,**,***)
202(3)	4822 256 91536	Cassette holder (⫲)(⫲⫲)
203(3)	4822 492 42299	Mount lever spring (*,**,***)
204(3)	4822 403 53573	Holder guide (L) (*,**,***)
205(3)	4822 403 53595	Mount lever (*,**,***)
206(3)	4822 528 90696	Roller (*,**,***)
207(3)	4822 403 53589	Pressure lever (L) (*,**,***)
208(3)	4822 403 53567	Holder angle (*,**,***)
209(3)	4822 403 53566	Cassette holder (*,**,***)
210(3)	4822 403 53588	Opener lever (*,**,***)
211(3)	4822 403 53591	Pressure lever (R) (*,**,***)
212(3)	4822 492 70086	Lever spring (*,**,***)
213(3)	4822 403 53574	Holder guide (R) (*,**,***)
214(3)	4822 492 42302	Release spring (*,**,***)
215(3)	4822 403 53587	Release lever (*,**,***)
216(3)	4822 443 40718	Side plate (L)
217(3)	4822 443 40716	Side plate (L)
218(3)	4822 403 53586	Opener lever
219(3)	4822 443 40719	Side plate (R) (*,**)
219(3)	4822 691 20507	Side plate (R) (***)
219(3)	4822 443 40817	Side plate (⫲)(⫲⫲)
220(3)	4822 443 40717	Side plate (R) (*,**,***)
221(3)	4822 277 21257	Slide switch
222(3)	4822 403 53593	Down support lever (*,**,***)
223(3)	4822 492 42301	Down support spring (*,**,***)
224(3)	4822 403 53607	Rack (A) (*,**,***)
225(3)	4822 492 32919	Clutch spring (*,**,***)
226(3)	4822 492 42304	Lock spring (*,**,***)
227(3)	4822 403 53592	Lock lever(*,**,***)
228(3)	4822 403 53606	Rack (B) (*,**,***)
229(3)	4822 535 92528	Main shaft
230(3)	4822 492 42298	Wiper spring (L)
231(3)	4822 403 53584	Wiper arm (L)
232(3)	4822 403 53585	Wiper arm (R)
233(3)	4822 492 42306	Wiper spring
234(3)	4822 403 53626	Cassette guide
235(3)	4822 443 62697	Cassette cover(***)
236(3)	4822 492 42305	Blinder spring
237(3)	4822 492 32922	Rack (C) spring (*,**,***)
238(3)	4822 403 53628	Connection rod (*,**,***)
239(3)	4822 492 32921	Rod spring (*,**,***)
240(3)	4822 403 53627	Cassette holder angle

Fixing material

Screws

S(1)	4822 502 13217
S(2)	4822 502 11283
S(3)	4822 502 30531
S(4)	4822 502 30552
S(5)	4822 502 30553
S(6)	4822 502 30551
S(7)	4822 502 30556
S(8)	4822 502 30557
S(9)	4822 502 11968
S(10)	4822 502 30559
S(11)	4822 502 30558
S(12)	4822 502 30554
S(13)	4822 502 30555
S(14)	4822 502 30562
S(15)	4822 502 30561
S(16)	4822 502 13219
S(17)	4822 502 13218

Retaining rings

R(1)	5322 530 74076
R(2)	4822 530 70122

Washers

W(1)	4822 532 11703
W(2)	4822 532 11704
W(3)	4822 532 11705

Circuit board assemblies (C.B.As)

Mechanism connection C.B.A.	4822 214 32534 (*,**)(⫲,⫲⫲)
Mechanism connection C.B.A.	4822 214 52531 (***)
Sensor LED C.B.A.	4822 214 32536
Sensor LED C.B.A.	4822 214 32532 NOT for (***)
Tacho circuit board	4822 214 32535 (***)
Tacho circuit board	4822 214 32543 NOT for (***)
Tacho circuit board	4822 214 32541 (***)
Erasehead circuit board	4822 214 32508 (***)
Control circuit head servo	4822 214 32509 (***)

*	only for DM 4/0
**	only for DM 4/2
***	only for DMS 4/2
⫲	only for DMP 4/0
⫲⫲	only for DMP 4/2